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VOLUME XXIXA.

ATTOCK DISTRICT

PART A.

WITH MAPS.

1907.

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PART A. 1907.

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Physical Aspects.

General description.

Attock District, which takes its name from the famous ford and fort at the north-west corner of the district, has an area of 4,178 square miles and lies between 32° 32′ and 34° north latitude, and 71° 17′ and 73° 5′ east longitude. It consists of the western portion of the rough plain country lying between the Indus and Jhelum rivers and under the mountains of Hazara. The real Sind Sagar Doab stops short of the Salt Range, which runs east and west from about Kalabagh on the Indus to near Pind Dadan Khan on the Jhelum. North of this range the Doab is continued in the rugged upland plain country which includes the famous Pothwar tract and stops short below the hills of Hazara and Murree. This rough northern Doab is divided between the three districts of Jhelum, Rawalpindi and Attock. The Attock portion is a strip along the eastern bank of the Indus, broadening out at places to east and south till it extends almost half way across to the Jhelum.

Boundaries.

On the west the boundary for over 80 miles is the Indus, across which lie the Peshawar and Kohat Districts of the North-West Frontier Provinces and the Isa Khel Tahsil of the Mianwali District. The remainder of the western boundary marches with the Mianwali Tahsil of Mianwali District. Across the southern boundary lies the Khushab Tahsil of Shahpur. The Chakwal Tahsil of Jhelum and the Gujar Khan and Rawalpindi Tahsils of Rawalpindi adjoin the district on the east. The northern boundary is to the east hills, to the west, for thirty miles, the Indus. Across the hills lies the Haripur Tahsil of Hazara, and beyond the Indus, the Mardan Tahsil of Peshawar.

The district forms part of the Rawalpindi Division. In shape it is roughly rectangular. The greatest length from north to south is 96 miles, and the greatest breadth 72 miles.

Divisions.

This large tract is divided into four tahsils. Tahsil Attock occupies the whole of the northern end. Tahsil Tallagang is a square block at the southern end. Tahsil Pindigheb to the west and Tahsil Fatteh Jang to the east divide the central portion of the district. These administrative divisions correspond fairly closely with the natural divisions.

Tahsil Attock.

Tahsil Attock is divided off from the rest of the district by the Kala Chitta hills, and includes all the country between that range and the hills of Hazara with the exception of a few villages to the east included in Tahsil Fatteh Jang. In character it differs

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from all other portions of the district, though not itself homogeneous in nature. Three well-defined and quite distinct tracts are included in it.

Chhachh plain.

To the north-west lies the Chhachh plain, centring about Hazro and containing the most fertile and richest portion of the district. On the north and west it is bounded by the Indus, and on the east by the Gandgarh hills running down almost due south from Hazara. In the south it is shut in by a steep slope, the edge of a bank of pure sand which runs across the western half of the tahsil from east to west. This Chhachh plain must at one time, before the Indus cut its way through the Attock hills, have formed with the greater part of the Swabi Tahsil of the Peshawar District, a vast lake. Tradition even now speaks of it as a marsh, and the older inhabitants affect to derive the name Chhachh from the word Chhab, which is said to mean a marsh.

Certainly the old villages are mostly raised above the surrounding country on eminences, and as late as 1835 the traveller, Baron Hugel, who came to Attock, from Hassan Abdal, wrote as follows:—

"There is not a single tree on the plain of Attock, which is as level as a sheet of water. Ruinous villages are situated on eminences artificially thrown up, like those of the Egyptian delta. The Indus frequently inundates (*sic*) the whole plain, though not with the same regularity as the Nile. Shujánpore (the place is presumably Shamsabad) is a wretched place by the side of a rivulet (the Chel), with morasses in its immediate vicinity. The view would be splendid, were the plain well cultivated; as it is, however, the scene is devoid of interest, and one only feels surprised at the endless range of mountains seemingly one above the other."

The plain is now a well cultivated and extremely fertile tract, 19 miles in length and 9 miles in breadth. The portion on the west, comprising the villages along the Indus bank, was swept by the great flood of 1841, and is covered with sand and boulders. To the west all the land under the Gundgarh hills is poor and stony. Much of the soil on the southern end is poor, and the upward slope of the ridge to the south is poor sand, getting poorer and poorer as it goes higher. But the rest of the plain is true plain and very rich.

Sarwala.

From the crest of the ridge the country runs right away down to Campbellpur, the head-quarters station, in a desert of waterless sand some five or six miles in length. Beyond Campbellpur, a strip of firmer land runs down to the Haro river, across which the country, stony and unproductive at best and everywhere gashed by numerous ravines, rises to the Kala Chitta Range of hills. This tract is known as the Sarwala. The portion north of Campbellpur, which is all waterless sand, contains no human habitation, and the railway, which once tried to follow the crest of the ridge, was driven in 1899 by want of water to strike down to Campbellpur, and climb thence back to Attock. It is in this great blank stretch

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of sand that the annual artillery practice takes place. The villages which own this piece of country have their sites either just to the south of the Chhachh plain, where the land begins to rise on the north side of the ridge, and where the Grand Trunk Road is aligned, or on the line of Campbellpur on the southern side of the ridge, where water can be tapped. All these villages are spread out in long narrow strips some five or six miles in extent. South of Campbellpur and north of the Haro the soil is rather less sandy and water is nearer. Across the Haro the soil becomes firmer and is capable of producing better crops, but is far more liable to drought. The country is everywhere very broken, and becomes more stony as the hills are approached.

Nala Tract.

The rest of the tahsil, the eastern portion, along with the villages of Fatteh Jang Tahsil north of the Kala Chitta Range, forms the Nala tract. Imagine a level plain. Dot it with meaningless barren hills, the spurs and off shoots of the Gandgarh Range. Streak it with equally meaningless ravines and streams, coming now from the Gandgarh mountain, now from its offshoots, now from the Margalla Range, and now from the hills of the Kala Chitta. Through it all twist and turn the river Haro in every direction. It is a country of sudden and constant surprises. All along the northern boundary the country is very much broken. This is a poor tract. In the centre to the east is the irrigated Panj Katta tract, then comes the broken and hilly country round Wah and Hasan Abdal, shot through by the Kandharipur, Lundi and Kherwar hills; then the bewilderment of hills and ravines and the Saggar well tract; last of all the waterless sandy waste on the borders of the Sarwala.

The southern portion of the tract is a comparatively open plain sloping south from the Haro up to the Kala Chitta Range, and including the northern corner of Tahsil Fatteh Jang. The soil is of limestone formation, but to the west pebble ridges crop up and to the east the tract shades off into the western and drier portion of the Kharora Circle of Rawalpindi Tahsil. This tract has much of the best land in the Attock Tahsil, but is everywhere scoured by many streams and numerous nameless ravines, which carry the drainage of the Kala Chitta hills down to the Haro.

The whole tract is a rough plain wedged in between the Hazara hills and the Kala Chitta Range, and broken here and there by the numerous isolated peaks starting up suddenly out of the surrounding country, and by the Haro river and its many confluent streams and ravines which gash the rugged tract in every direction.

Tallagang Tahsil.

Tallagang Tahsil is a square block of country at the very south of the district, from the rest of which it is separated by the Soan stream. The whole southern boundary of the Tahsil is fringed by the northern ridges of the Salt Range, which enters the tahsil

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at its extreme south-west corner, where the spurs of Mount Sakesar descend into the village of Lawa. But the Salt Range hardly enters the district at all, keeping in this part of its course mostly to Shahpur District. The tahsil is a high-lying plateau sloping gradually in a north-west direction down to the Soan, which is the northern boundary. The whole area is scoured by the deep beds of numerous torrents, descending from the Salt Range, and crossing the tract northwards, and is fretted everywhere by innumerable small ravines and gullies.

Each area between two torrents assumes a slightly arched surface falling away towards the drainage channel on either side, the best and most productive portions being those which lie under the watershed where there is a large extent of level ground not troubled with ravines. Near the large torrents the slope becomes severe, and the surface very broken and stony. It seems probable that the underlying rock which always crops out at the watershed is nowhere very far from the surface throughout the entire plateau, and whenever the ground ceases to be fairly level, the overlying soil if left to itself and not banked up, is almost certain to be carried away from all the higher levels. In some instances, however, the land near these torrents is better than all the rest: this is the case when the streams leave their deep beds and run in a more open channel, when they are frequently fringed by a broad riband of level ground dotted with wells, and covered with a prosperous cultivation. Unfortunately these areas are neither very extensive nor very numerous: they are more commonly met with on the lower courses of the torrents near their points of junction with the Soan. Outside of these low and level tracts, wells are very scarce throughout the whole of the plateau; such wells as there are being often mere holes scraped in the light sandy soil or cut in the porous sandstone at the edge of a ravine, and yielding very little water. Each village has, therefore, several banks often raised to a great height, in open uncultivated spots, which collect the drainage water in large ponds; and on these the cattle depend entirely. They sometimes dry up, however, in bad seasons, and the distress is then very great, for in such seasons the wells often dry up also, and the villagers have to go miles for water. As a general rule the soil becomes coarser and more sandy as one proceeds from east to west through the plateau: at the same time the rainfall diminishes, the holdings becoming larger and larger, and the methods of the cultivators get rougher and more slovenly owing to the larger area that each has to deal with.

Rugged as the Tahsil is, the country is nowhere broken by any prominent hills, and slopes gradually from an average height of 1,000 feet above sea level along the Soan to about 2,200 feet along the skirts of the Salt Range.

The central plateau.

The central portion of the district, divided for administrative and political reasons into Tahsils Pindigheb and Fatteh Jang, lies

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between the Kala Chitta Range on the north, and the Soan river on the south, and in general character is a high upland plateau, bounded on the west by the Indus and extending on the east into the Indus-Jhelum Doab. But there are three tracts which differ in character from the rest of these two tahsils.

The Fatteh Jang Sil Soan.

The south-east corner of the Fatteh Jang Tahsil, known as the Sil Soan Circle, is cut off from the rest of the district by the abrupt wall of the Khairi Murat, which stretches along the northern boundary, and, being only passable by goat tracks, presents an insuperable barrier to internal traffic and commerce. This corner of the district is traversed by three streams, emerging from Rawalpindi district and flowing through the district here in a south-westerly direction. North of the Sil the high lands slope up in a wilderness of ravines to the Khairi Murat, scoured with torrents, and divided into fantastic shapes. Between the Sil and the Soan to the south the country is a strip of low hills and pebble ridges. The valley of the Soan itself consists of the broad and sandy bed of the stream flanked by wide stretches of rich alluvial loam, with thickly wooded villages clustered closely along the banks, each surrounded by clumps of rich wells. This tract is secure from famine in the worst of years. Beyond the Soan again and separated from it by high dry uplands is the Wadála, with many good wells and much good low-lying land along its banks. Neither the wells nor the alluvial lands of the Wadála can compare in fertility with the more favoured valleys of the Sil and the Soan, while the drifting sand of the stream's bed is always spreading and enveloping the fields along its banks. South of the Wadála and extending up to the Gujar Khan and Chakwal boundaries is the tract known as the Asgam. Here there are no wells. The tract is a narrow undulating plain of small villages, light fertile soil, and good barani cultivation, closely resembling the north of the Dhanni Circle of Chakwal and the south-west of the Jatli Circle of Gujar Khan. The Asgam is really a part of the Lundi Patti ilaka, part of which forms the assessment circle of the same name in the Chakwal Tahsil of Jhelum District. The name Asgam, meaning the unknown country, seems to be the Sanskrit equivalent of the name Lundi Patti, which means the patti, without a tail, the country which is neither Dhanni nor Pothwar, nor Soan, and yet lies near them all. The tract is most commonly spoken of as the Lundamaira, having reference to the fact that it is a Barani country with no irrigation and little water.

Makhad Ilaka.

The south-west corner of Pindigheb Tahsil, the Makhad ilaka, is a wild and mountainous country. A range of hills extends along the bank of the Indus from the Soan on the south to the Reshi on the north, and in places rises as high as 2,000 feet above sea-level. Cultivation is carried on either in the sandy soil

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which is found on the top of stony plateaux, or in deep valleys banked up at the lower end to catch the soil washed down by the floods. Wells are few and small in area.

The Jandal.

The remaining portion of the central plateau which abuts on the Indus, and stretches from the Reshi on the south to the Kala Chitta Range on the north, is known as the Jandal. Its eastern boundary is the high road between Attock and Kalabagh. This tract is in strong contrast to the rest of the central plateau. Here and there rock and ravine occur, but the characteristic features of the tract are the undulating stretches of fine sandy soil pre-eminently suitable for gram crops. Wheat is also grown, but Kharif cultivation is of very little importance. There is a small amount of irrigation from wells and springs.

The central plateau.

The rest of these two tahsils forms a huge wedge-shaped plain running east and west, some 70 miles in length and 40 miles in breadth. This is a high upland open-air country in general barren and unprofitable, but containing here and there more fertile depressions in pleasing contrast to the barrenness of the surrounding plateaux. In the centre and towards the west the country rises to a series of broken hills covered with stones and, though cultivation improves on either side, rock always lies near the surface, and crops are liable to wither rapidly without steady rain, which is a rare event in this part of the country. To the north the soil is a hard red clay which gradually merges into the sand of the Jandal. To the east in Fatteh Jang the plateau approaches in character the Kharora Circle of Rawalpindi. The soil has much in common with the dry gravelly soil of the Kharora, sandy towards the east and getting drier and harder towards the west. The transition from the rough plain of Rawalpindi to the high upland is through dry gritty loam. Generally this country is a bleak, dry, undulating, often stony tract, broken by ravines, and scarred by outcrops of rock. All the characteristics of aridity and bleakness common to the whole plain get more marked to the west and culminate in the hills near the Indus where the crop is poor in the best years, while in the worst years there is no crop at all.

Hill system.

Most of the hills of the district have already been referred to in describing the general configuration and natural divisions. It is necessary now to notice them in more detail.

There is no general mountain system. No doubt geologically there is some connection between the various hills, but there is no regular chain or range system apparent in the district, and the mountainous portions are detached and isolated.

The Salt Range.

The Salt Range and the Gandgarh hills do not properly belong to the district. The former skirts the southern border of Tallagang Tahsil. Only the lower slopes of the range are included in the district, except that at the south-west corner of the

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tahsil the district boundaries have been drawn out so as to include a portion of Sakesar Hill. This gives the district a sanitarium 5,000 feet high.

Gandgarh Range.

On the northern boundary of the district the Gandgarh Range descends from the Hazara hills. The range itself does not enter the district, but its western slopes project into and die away in the Chhachh tract of Attock Tahsil, while the broken country in the Nala tracts and north of the Haro river is simply the southern skirt of the range. The sudden barren hills which break up the Nala tract are probably offshoots from the main spur of the Gandgarh mountain.

Kherimar.

The chief of these is the Kherimar, or "sandal-destroying" hill, a ridge 8 miles long and less than 2 miles broad running east and west across the Nala Circle. It nowhere attains a height of more than 2,400 feet, and is both uninteresting and unimportant. Almost its whole area is a Government reserved forest, but there is not much wood or grass on it. Lundi and Kandharipur are small detached hills, satellites at its north-eastern corner.

A little to the west of the Kherimar ridge the Hasan Abdal, Budho, Bajar and Purmiana hills, are outposts of the Gandgarh range, each separated from the other and from the main ridge, and each simply a bare forbidding mass of rock and shingle.

Kawagar Hill.

Five miles south-west of Kherimar ridge the Kawagar hill, or Mount of Olives, has been dropped in the comparatively open plain. It runs parallel to the Kherimar, forming for about 5 miles the boundary between the Attock and Fatteh Jang tahsils, and for the remaining seven miles of its course striking out west into the Sarwala ilaka, where it is finally stopped by the Haro river opposite Campbellpur. Everywhere its height is under 2,000 feet, and, although it starts with some suddenness from the surrounding country, its appearance is nowhere impressive. The hill is formed of black marble with a yellow vein, capable of taking a fine polish. This is worked into cups and vessels and is locally known as "abri." The greater part of this hill also is a Government Reserve, at present leased for fodder to the Camel Cadre Corps at Campbellpur, and has a number of olive trees from which it takes its name.

The Attock hills complete the lists of hills confined to Attock Tahsil. These are very bleak and bare, and are formed of slate with veins of limestone and whitish marble. The greatest height is only a little over 2,000 feet. The Attock fort and town lie at the north-western corner on the banks of the Indus. This cluster of hills also is isolated from any system within the district. It appears to have been cut off by the river from the Peshawar hills. It is remarkable only for the fierce heat which it accumulates in the hot weather.

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The Kala Chitta Range.

The most important hills in the district are the Kala Chitta Range. This wall of hills, which runs completely across the northern part of the district, and cuts off the Attock Tahsil from the other tahsils, is a rough wedge with its base resting on the Indus and gradually tapering as it proceeds eastward till it dies away on the border of the Fatteh Jang and Rawalpindi tahsils, about 15 miles north-west of Rawalpindi Cantonment and within about 3 miles of the western extremity of the Margalla mountain range. Its breadth at its base is about 12 miles. Its length is 45 miles. The range is formed of two portions differing very much in appearance from each other, and its structure is of considerable geological interest.

The south-western portion known as the Kála Pahár or black mountain, is generally formed of very dark sandstone, often quite purple in hue, and sometimes almost blackened by exposure to wind and weather. Mixed with this are found grey sandstone and red clay.

This portion extends along the southern side from the Indus, throughout the Pindigheb tahsil, and ends at the village of Gaggan. Its length is, therefore, 35 miles, its extreme breadth about 4 miles.

The "Chitta," or white hill, which forms the main portion of the range, runs the whole length of the range on its northern side. Its breadth at its base on the Indus is about eight miles. This portion is formed of white nummulitic limestone (hence its name), but portions of dark sandstone are occasionally to be found cropping up in the midst of it. It is much the more valuable portion of the range, both on account of the limestone, which is used for burning, and of the forest produce, which is far better than in the Kála or black portion.

On the sandstone nothing is to be found but stunted *phalaa* trees (*Acacia modesta*) and a few useless shrubs, and the grass is poor and scanty. In the limestone portion, on the other hand, especially on the northern slopes, there is often to be found a luxurious growth of *phalaa* (*Acacia modesta*), *kahu* (olive—*olea ferruginea*), *sanatha* (*Dodonæa viscosa*), *khair* (*Acacia catechu*) and other shrubs, and much of this portion only wants a little care and management to be of very great value.

The range is in general formed of sharp ridges with deep valleys between them. The greatest height attained by the range is 3,521 feet within a few miles of the Indus, and many of the peaks range between 2,000 and 3,000. Some of the valleys are fairly broad and have a considerable area of cultivation in them, as in the case of Gandakhas and Kálhi Dilli hamlets. Towards the eastern portion the hills are much lower and are more rolling ridges than hills, but the general surface is throughout much broken and very irregular. There are some streams to be found among

these hills, and emanating from them, but none of any importance. The Nandua cuts through the range at Garhi Hassu in a very curious way from south to north, rising in the Khairi Murat and discharging into the Haro.

The climate of the tract is dry and hot, consequently only hardy plants which do not require excessive rain, and can sustain the great heat, are found here. The climate and forest produce of this tract differ much from that of hills in the Murree and Kahuta spurs of equal height. The rainfall is much smaller and the heat much greater. Many parts of this range are extremely wild and sombre, and in past times these hills formed a safe refuge for criminals, and even in comparatively recent times murder and robbery were common in these tracts. Much of the range has been formed into a Government reserved forest.

There is no timber of any size produced in this tract, but the forests are of immense value for the supply of fuel to all the cantonments and cities in the neighbourhood.

The Cambellpur Railway Station on the North-Western Railway is very conveniently situated for receiving wood brought out from the north of the forest reserve, and several of the stations for the Khushálgarh branch line of that railway are conveniently situated on the south of it, and an excellent military road cuts right through the reserve from Thatta on the south to Chhoi Gariála on the north. This is part of the road from Makhad to Attock, made at the time when Makhad was the terminus of the Indus flotilla. There are several other roads passable for camels across these hills.

Narrara hills.

South of the Kala Chitta in the south-western corner of the Pindigheb Tahsil lie the Narrara or Makhad hills. These hardly deserve the name of hills, being simply a thick cluster of high pebble ridges on the bank of the Indus. The highest point is only 1,822 feet above the sea. The general trend of the ridges is from east to west. The range on the other side of the Indus river in the Khattak country is well-marked and is known as the Takkargah of Hakani, but on this side there are only low ridges and deep ravines covered with boulders and water-worn stones. The tract is very bleak and wild, it bears little or no wood and is covered only with stunted bushes and coarse grass. In the Narrara iláka there are some comparatively fertile valleys, but most of them are poor and inferior. The best Huriál shooting in the district is to be had in the Narrara and Makhad hills.

The Khari Murat.

The only other hills in the district are the Khairi-Murat range, rich in legends of the past and stories of demons and fairies. Geographically a continuation of the Chir Phar hill in Rawalpindi, it rises abruptly from the plain on either side and attains a height of over 3,000 feet. Beginning on the border of

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the Rawalpindi District it runs steep and almost trackless, in a south-westerly direction, through the middle of the Fatteh Jang Tahsil, separates the central plain, or Gheb, from the Soan Valley to the south, and dies away on the Pindigheb border in a series of small spurs running down to the bank of the Soan river. The eastern extremity is about 12 miles west of Rawalpindi, and the total length is about 24 miles. The range is formed chiefly of limestone edged with sandstone and earthy rocks, the vertical and contorted strata of which indicate extreme disturbance. The southern portion of this range is extremely dreary, formed of rocky ravines and stony hillocks gradually sinking into the fertile valley of the Soan. A considerable portion of the hill has been included in a Government Reserve, and though it had been almost completely cleared of forest growth, it is yearly becoming more valuable.

Scenery.

There is nothing very striking in the scenery of the district. The Kala Chitta, as seen from the north, is, especially towards the Indus, in places fairly imposing. The Chhachh *maidan* is a pleasing open green plain. But the most characteristic and striking scenery is the central plateau, where the high, open, quiet uplands have an impressiveness of their own. Waste though much of these uplands is the wide fresh open spaces, remote from and high above the surrounding world, are peculiarly exhilarating.

Drainage.

The drainage of the whole district is into the Indus, which, though not actually flowing through any portion of the district, divides it from Peshawar and Kohat districts of the North-West Frontier Province, and forms part of its northern and almost the whole of the western boundary.

The Indus.

On leaving the Hazara District, the Indus, there known as the Attock river, suddenly widens out into the open, separating the Chhachh from Yusafzai. It is here very wide with many separate channels and intervening islands, and so continues until it reaches Attock, where it suddenly contracts into a narrow rocky bed. Being joined by the Kabul river on its right bank, it here becomes the Indus, and rushes on through a gorge with high banks on each side and the Attock fort on its left bank. About three miles below the fort it is crossed by a new fine iron railway bridge, built in 1883. Below Attock, near Bagh Nilab, it again spreads out into a kind of lake, but soon again contracts and flows thence through narrow gorges, being at one place only 60 feet wide, down to Makhad, and thence out beyond the district limits.

The river is navigable by native boats as far as Attock, but between Makhad and Attock the passage is difficult and often dangerous, and the labour of getting the boats up against the strong current is very great. The river is largely derived from

snow-water, and is subject to tremendous floods. The average depth at Attock is 17 feet in winter and 50 feet in summer. There used to be a bridge-of-boats at Attock, but since the railway bridge and its sub-way have been opened, it has been done away with. A second railway bridge over the river at Khushalgarh is in course of construction.

The Indus is of no value to the district for irrigation purposes at present.

Watershed.

There are three well-marked drainage areas in the district which is divided by two very definite watersheds. The northern watershed follows the top of the Kala Chitta range across the district as far east as Fatteh Jang, then runs due south to the Khairi-Murat, and finally turns north-east by the crest of that range to the Rawalpindi border. North of this is the Haro drainage system.

The second watershed starts at the south-west corner of Pindigheb Tahsil near Makhad, runs in a straight line north-east across the tahsil and on to Fatteh Jang, thence strikes south to the Khairi-Murat, and then makes off north-east by the crest of the Khairi-Murat range to the eastern boundary of the district. North of this line, west of Fatteh Jang and south of the Kala Chitta, the country drains direct into the Indus. The chief drainage channel is the Reshi. South of this watershed all the district drainage is into the Soan. The Gandgarh hills on the north and the Salt Range on the south limit the catchment area of the district.

The northern drainage area, which includes the whole of Attock Tahsil, the Nala Circle of Fatteh Jang Tahsil, and the north-eastern portion of the Gheb Circle of that tahsil, pours its waters into the Indus through two main channels, the Chel and the Haro.

The Chel.

The Chel is the only stream of the Chhachh plain, which it traverses along its southern border. It receives practically no drainage from the north but is fed by all the ravines which bring down water from the sudden ridge dividing the Chhachh from the Sarwala. Beginning in the Hatti marsh near Hazro it flows due west and joins the Indus after a course of about 20 miles, a few miles above Attock.

The Haro.

The Haro rising in the Hazára hills not far west of Murree, flows past Khanpur and cuts across a small portion of the Rawalpindi District near the village of Bhallar-top. Entering Attock Tahsil near the junction of Attock, Rawalpindi and Hazara districts, it flows north-west for about ten miles, then turns west and runs for about twenty miles below the main wall of the Gandgarh range, passing just north of Hasan Abdal. In the broken country east of Lawrencepur it turns south, leaves the Kherimar hill on the left and

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runs through the west of the Nala Circle to the west end of the Kawagar ridge. Then flowing due west it passes south of Campbellpur, and after a course of about fifteen miles through the Sarwala discharges its water into the Indus near Bagh Nilab, twelve miles below Attock. The Haro is a most capricious stream. In its course through the Attock Tahsil it violates every point of the compass. In no part of its course does it flow for any distance in a constant direction. Every now and again some little hill starts up to give the stream another kink. Only in the Sarwala is its course uneventful. For much of its course it flows far below the level of the surrounding country in a channel cut deep into the rock and hard-clay of the tract and flanked on either side by high precipitous banks. Add to this the sudden floods to which the river is liable, and it is easy to see what a serious obstacle the Haro presents to district communication. The river is crossed by a wooden girder bridge on the Grand Trunk Road, and by an iron railway bridge close beside it, near Burhan, six miles form Hasan Abdal. It is usually fordable except when in flood, but a ferry boat is kept up at Chhoi Gariala, on the cart road from Attock to Makhad. This road was constructed to connect Makhad with Attock, at the time when the former town was the terminus of the Indus Valley Flotilla. The bed of the river is generally stony, and the water clear, blue and limpid. There are no tributaries of any importance on the right bank. In the eastern part of its course through the district it is crammed up against the Gandgarh Range, and to the west the only area draining into it from the north is the small dry tract sloping down from the sandy ridge between Chhachh and Sarwala including Campbellpur. From the south the only tributaries worth mention are the Chablaht, the Saggar, the Nandra and the Shakardarra. The Chablaht rises in the west of the Rawalpindi Tahsil, waters the south-east corner of the Nala Circle of Attock, and passing between Hasan Abdal and the Kandharipur hill flows north till it joins the Haro after a course of about 20 miles. The Saggar gathers all the streams which flow down the northern slopes of the Khairimar, drains the fertile valleys of Hasan Abdal and Burhán to the north, and carries the accumulated waters east to the Haro.

The most important tributary is the Nandra, gathering part of the flood water of the northern slopes of the Khairi Murat. This stream flows north through the Gheb of Fatteh Jang, cuts through the Kala Chitta in a deep gorge and emerges on the Nala Circle of Fatteh Jang. Here it is joined by the Bahudra, a considerable stream which takes its rise near Sangjani in Rawalpindi and flows west below the northern slopes of the Kala Chitta. Across the Fattehjang Nala the Nandra flows north-west, but on the Attock border it turns due east, and then flows in the valley between the Kala Chitta and Kawagar ridges. It joins the Haro near the

bridge which carries the Mari-Attock Railway across the latter river. CHAP. I, A. Physical Aspects.

The Shakardarra is purely a hill torrent. It rises in the valley between the two ridges of the Kala Chitta, flows west, and bursting through the northern ridge by the gap which carries the Mari-Attock Railway, joins the Haro below.

The Haro itself is of some importance agriculturally. In the Nala ilaka, which is the first part of the Attock Tahsil into which it flows, and in the small portion of the Rawalpindi Tahsil which it drains, its waters are much diverted into cuts and small canals known as "kattha." This tract, which in Attock Tahsil comprises seventeen villages, is known as the Panjkattha, from the thirteen cuts or channels which take out of the Haro and irrigate the land. There are also many flour mills (*jandar*) on its banks especially at Jassian near Campbellpur, where there are a large number on the side streams between rocks and on artificial cuts, which have a very curious appearance.

Excellent fishing is to be had in the Haro and its tributaries in March and September. Portions of the Haro and the Chablat are preserved by the Northern India Fishing Association, which has its head-quarters at Rawalpindi.

The northern and western portions of the Pindigheb Tahsil drain direct into the Indus. The smaller streams are not worth mention, but the Reshi, which rises in the west of Fatteh Jang under the Kala Chitta, crosses the whole of the tahsil from east to west. In its early course it is called the Tuthal, and takes the name of the Reshi only when it nears the Jandal Circle. The bed is generally deep and the banks rocky, and in but few places does the channel widen enough for a few wells to be sunk along its edges. It is of but little value to the agriculture of the tahsil, but is a serious obstacle to traffic from the north to the south. Its catchment area is small, and it has no tributaries of any length. The Reshi.

More than half the district drains into the Soan. Rising near Murree this stream, at first merely a mountain torrent, flows south-west across Rawalpindi District and enters Fatteh Jang Tahsil near the village of Chauntra. Its course through the tahsil is south-west, and it receives the drainage of all the country south of the Khairi Murat Range. On leaving Fatteh Jang it turns east, forms for about 60 miles the boundary between the Pindigheb and Tallagang Tahsils and falls into the Indus, on the boundary of this and the Mainwali districts just below Makhad. The Soan is a broad, rushing stream, treacherous and full of quicksands. Always dangerous, and impassable for days after rain, it exacts every year its tribute of lives. An elephant in the train of the Marquis of Dalhousie was engulfed in a quicksand when he was on the march to Kalabagh in 1850 and another also was nearly lost. The Soan.

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The channel is broad and sandy, and on either bank are rich stretches of alluvial land, thickly wooded, studded with wells and secure from famine in the worst of years. The river is everywhere fordable when not in flood. Very few cuts or channels have been constructed for diverting water for irrigation purposes. The river is subject to very heavy floods, not only in the "barsat" in July and August, but also in the winter rains of January and February, and these floods prevent the construction of permanent irrigation works. In Fatteh Jang Tahsil it receives two large tributaries.

The Fattehjang Sil.

The Fattehjang Sil, which rises near Rawalpindi, receives all the drainage of the southern slopes of the Khairi Murat, and various small streams from the north which curve round the eastern extremity, and after a course of about 30 miles through the southern end of the tahsil, joins the Soan on its northern bank near the boundary of Pindigheb Tahsil. In Fattehjang Tahsil the bed, previously narrow and shut in between precipitous banks, widens out, and the stream meanders along between alluvial banks until it reaches the Soan. The channel always carries some water, and heavy floods pass down after rain; but the stream is small and unimportant compared with the Soan.

The Wadála.

The Fattehjang tributary on the south bank is the Wadála, which rises near Rewat in the Rawalpindi Tahsil and after dividing the Rawalpindi Tahsil from Gujar Khan and the Gujar Khan Tahsil from Fattehjang, bends westward, enters Fattehjang near its southern boundary and runs through Fattehjang for about 20 miles a few miles south of and parallel to the Soan, which it joins on the borders of the Chakwal Tahsil of Jhelum. The Soan here receives the Karáhi, Bhágneh and Sanj feeders from Jhelum District, and the meeting place is called the Pachnand, or "Five Waters."

In its upper reaches in Rawalpindi the Wádala is a mass of forbidding ravines, but in this district it broadens out into a wide sandy channel. It carries little water at any time, while the drifting sand of its bed is always spreading and enveloping the fields along its banks. The Sil and the Soan in their yearly scouring take much land and give back little, but the Wadála gives back nothing in return for the land over which its sandheaps drift. There are many wells along the banks, and much good low-lying land, but neither the wells nor the alluvial lands of the Wadála can compare in fertility with the more favoured valleys of the Sil and the Soan.

The Pindigheb Sil.

The only tributary of any importance which joins the Soan is the Pindigheb Sil. It must not be forgotten that the Fattehjang Sil and the Pindigheb Sil are totally distinct and separate streams and have no connection with one another. Similarly there are two Tuthal streams, one being the upper waters of the Pindigheb Sil

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and the other the northern part of the Reshi. The Pindigheb Sil rises in the west end of the Khairi Murat, and, receiving drainage from a multitude of small streams, enters the Pindigheb Tahsil as a rugged mountain torrent. It is here known as the Tuthal, and is not called Sil till it broadens out near Pindigheb, where for a few miles fertile wells and avenues of trees are in pleasing contrast to the barrenness of the surrounding plateaux. The area it drains is the whole of the southern part of the Pindigheb Tahsil together with a small western portion of the Fattehjang Tahsil between the Kala Chitta and the Khairi Murat.

Tallagang drainage.

The Tallagang Tahsil, a high plateau, sloping from the Salt Range north-west to the Soan, is drained by a multitude of "Kases" all running north-west and all falling into the Soan. The main drainage channels are two large streams both called the Gabhir and both rising near Jaba in the Salt Range in Shahpur District. One curves to the east and then to the north dividing Tallagang from Pind Dadan Khan and Chakwal, the other to the west and north-west forming the boundary with Mianwali District. Both fall into the Soan. The Draggar rises south of Tallagang and flows north past that town and Kot Sarang. The Ankar is a large single stream only north of Tamman. South of that town it is a great network of streams and ravines covering the centre of the tahsil and stretching back to the Salt Range. The principal stream rises in the Salt Range behind Thobá Mahram Khan. The Leti which flows in one single channel from the Salt Range to the Soan at Trap, forms the boundary of the Mial and Pakhar Ilakas, and was formerly the western boundary of the tahsil. Of the streams the Leti is the deepest, and has little culturable land on its banks, which are high and rocky; the Ankar at first also runs between high banks, but latterly widens out and has several prosperous villages on its banks. The banks of the Draggar are generally steep, but here and there expand and afford room for several flourishing little wells. These torrents are not utilised for purposes of irrigation, though a certain amount of land on the banks of a few of them benefits by their floods.

Lakes.

There are no lakes in the district. The only marsh of any size is at Hatti on the Grand Trunk Road about twelve miles from Attock. This is generally known as the "chel," and is 607·28 acres in extent. Some rice is cultivated here. At times very fair snipe and some duck shooting are to be obtained.

Water-supply of the district.

Speaking generally, the district cannot be said to be well supplied with water. The Attock Tahsil is almost all very well off, and the northern portion of the Fattehjang Tahsil and the whole valley of the Soan are well supplied with streams and wells. But elsewhere wells are decidedly uncommon: with a few rare and costly exceptions the only spots upon which they are built are the stretches of level ground which sometimes fringe the course of a "kas."

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The high arid uplands and plateaux of Pindigheb and Tallagang have very little water even at the best of times. Unless there is a natural spring the only resource is a tank or a water hole, both liable to failure, when long journeys have to be made in search of water, the cattle often leaving their own villages for the same reason.

Geology.

Some information regarding the geology of the district will be found in Mr. Medlicott's pamphlet on the Geology of the Punjab and in a paper on the Rawalpindi Hills in Volume V of the "Records of the Geological Survey." The Geology of the Salt Range is referred to in the Jhelum Gazetteer, where references are also given to the standard authorities.

The foundation of theTallagang Tahsil is, with trifling exceptions, an ill-compacted light grey sandstone, sometimes covered with a depth of more or less sandy soil, sometimes close to the surface or cropping up through it, especially in the higher parts, which, from their exposed situation, have been denuded of nearly all the soil that covered them. The rest of the district, south of the Kala Chitta Range, is a mass of dark friable sandstone which forms the great range of the Khairi Murat and the south part of the Kala Chitta. The sandstone is never far from the surface and crops up in ridges and pinnacles all over the tract but especially in the Pindigheb Tahsil. The pebble ridges, which are a marked feature of the Rawalpindi Tahsil, are also much in evidence here, where the south-west of Pindigheb and the whole of Makhad is a mass of forbidding pebbles and sand. The north part of the Kala Chitta is pure limestone and the tract lying along its skirt and including much of the Sarwala and the Nala tract of Attock Tahsil and the whole Nala tract of Fattehjang partakes of the same formation. Even in the Khairi Murat range limestone crops out amid the sandstone and forms a characteristic feature of the range. Kankar is everywhere in the stiffer soils and materially diminishes their power of withstanding drought. The Chhachh and some of the Sarwala is alluvial in character, but the rest of Attock Tahsil to the north is of sandstone formation and is geologically connected with the Gandgarh range. Kallar appears sporadically, chiefly in Tallagang Tahsil, in the form of barren patches in otherwise fertile fields. It seems to be now certain that Kallar is not, as was formerly supposed, directly due to salt washed down from the hills, though temporary damage is sometimes so caused, but in general the evil arises from stagnation of the subsoil water, when the salts are brought to the surface by evaporation and capillary attraction. Experience seems to show that in the absence of canal irrigation the area affected tends gradually to expand, increasing in years of deficient rainfall, and decreasing, though probably in the long run, not to quite the same extent, in years when the

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rainfall is heavy, and counteracts the tendency of the salts to collect on the surface.

Botany.

The flora of the district is unimportant. The only forest at all worthy of the name in the district is that on the Kala Chitta Range. There are various preserved areas, however, elsewhere in the district, as on the Kherimar, Kawagar, Khairi Murat Hills and in the Narrara tract. All the large landowners make their own rakhs, in which they carefully preserve the grass and wood, and allow no one to trespass. But in general the district is very bare. The vegetation is poor and sparse and the country is thinly wooded.

Trees.

Everywhere the most common tree is the Phulahi (Acacia modesta). A few specimens are large trees with heavy timber, but in general it is stunted, with gnarled and contorted trunk. It is perhaps the most important tree in the district, because it is the only one which is really plentiful. Goats and sheep feed on it. The wood is dark, strong, heavy and close-grained. Oil mills are made from the largest specimens, and ploughs, well-work, and all manner of agricultural and domestic implements from the smaller wood. For these purposes it excels all the other timber trees of the tract. As it is a tree of very slow growth, its wood is very durable, but if it is not cut down on full maturity the timber soon decays and becomes useless.

The more graceful Kikar (Acacia Arabica) is found along roads and among the cultivated fields. In the Soan valley there are some fine groves of Kikars planted and carefully preserved. Near and in the hills it does not seem to succeed, being probably killed down by the severity of the winter frosts, by which this tree is readily affected in the first years of its growth. Where it grows at all, it grows very rapidly. It is perhaps the most useful of the district trees. The timber is hard and durable, considering its quick growth, good for ploughs and well wheels, for cart-making and a variety of other purposes, while it is also useful for burning. The bark and the pods are valuable tanning agents, the latter also affording excellent food for sheep and goats, and the leaves, too, are freely eaten by all stock in times of drought. The gum that exudes from the tree is an astringent medicine.

The Shisham is fairly common in the richer parts of Attock Tahsil. South of the Kala Chitta it is comparatively rare, but is found, especially in the east, clinging to the banks of ravines and torrent beds.

The Khair (Acacia catechu) grows in the Kala Chitta and Khairi Murat Ranges. But next to the Phuláhi the commonest hill wood is the Káó (Olea europala) or wild olive. In the plains

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it is found only in the Nala Circle, and is always a mark of good soil and generally of limestone soil. It flourishes on the Kala Chitta, the Khairi Murat and the Kawagar hill, and only there attains to considerable size. Goats and sheep browse upon the leaves, which are useful for cattle also in times of scarcity. Standards outside reserved forests are kept small by constant browsing. The fruit is neither eaten nor crushed for oil. The wood is very hard and good, though small. Sticks, combs, charms, and rosaries are made from it.

The Ber (Zizyphus jujuba) is not uncommon. The leaves and young shoots are useful as fodder, and the wood for house-building and fuel. The fruit is a not unimportant article of diet. A small variety, called "beri" or "malla" (Zizyphus nummularia), grows freely as a shrub in Tallagang, where it is cut over every year, the dried leaves mixed with chopped straw being considered a valuable fodder for cattle particularly milch kine. The branches are used for making hedges. The fruit too, though small, is eaten.

Dhrek (Melia sempervirens) nowhere grows wild. It is planted near wells and houses, especially new wells and houses, as it grows rapidly and is useful as a shade tree. But it is not very plentiful. The wood is of very poor quality, but is used for light rafters and the like: also for plough-yokes (panjálí).

Bohr or banyan trees (Ficus indica) and less often the "pippal" (Ficus religiosa) are occasionally seen.

The tút or mulberry is found among roadside trees and in Attock Tahsil; seldom elsewhere.

Brushwood.

Generally vegetation is better towards the east. Towards the west it gets thinner and scantier. The leafless "*karíl*" (Capparis aphylla) becomes common and always marks bad soil. It grows on rough lumpy ground, and though seldom more than a large bush, it sometimes becomes a tree of small size. The ripe fruit (pinjú) is eaten, and the half ripe is pickled (dela). The wood is used for fuel and for light lath-work in village houses. The *jal* (Salvadora oleoides), with its pílú fruit, is found near the Indus. It is sometimes a tree but more commonly spreads into a bushy undergrowth. *Láná* also grows near the Indus and on Kallar lands too salt to produce anything else. It is always a sign of aridity and desolation. It affords excellent grazing for camels, and cattle will eat it if very hard put to it for food. It is not to any extent burnt for "*sajji*" or carbonate of soda as is commonly done in the adjoining district of Shahpur.

By far the commonest of the hill shrubs are "*bhekar*," (Adhatoda vasica), and *sannatha* (Dodonæa burmaniana). *Bhekar* grows everywhere. The flowers are white, with rather an evil

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smell, but are much beloved of bees. The shrub is useless except as fuel for native limekilns and to a small extent for making charcoal. *Sannatha*, a quick-growing shrub, often reaching ten feet in height, but degenerating after ten years, often covers the entire slope of a hill. It is a pleasant looking shrub with glistening dark green leaves. It is very inflammable, even when green. Except for fuel and light roof-work it is useless.

The *ghanira*, or oleander (Nerium odorum), with its pretty pink and white flowers, is common in many of the torrent beds. Its leaves are poisonous, and animals bred in the district always avoid it. Imported stock seem to have no such instincts. The stalks are used for pipe-stems and ox-goads.

The straggling *ak* with its broad leaves and woody stems is a familiar object on poor land. It is generally considered a useless weed, but it can be made to serve various useful purposes. The stalks are burnt, goats browse on the bitter leaves, fibre can be got from it, and the cotton-like down in the pods is considered a luxurious stuffing for cushions.

Weeds.

The thorny "*pohli*," not unlike a thistle, but with a yellow flower, covers acres of the district after the rabi harvest. The seeds are edible and are often eaten in years of scarcity. The most intrusive of all weeds, however, is the "*bukát*" or "*piyázi*," an onion-like weed, which occurs all over the district, and may often be seen filling entire patches in wheat fields, having choked the growing corn. Its black seeds are sometimes ground and eaten by the very poor in times of great scarcity. "*Bhakhra*" is another common weed, which produces in the autumn an abundance of triangular spiked seed-pods. In times of drought these are ground and mixed with flour to make a black and sour substitute for ordinary wheat cakes. The "*harmal*" (Pegarum harmal) is also common; it is useless, but does no harm.

A very useful weed (if it can be so styled) is the *chanáka* (Diptotaxis griffethsii), a sort of wild oilseed rather like *táráмira*, but with a violet flower. It grows freely in Tallagang in favourable years, and the seed is collected and sold for export to Amritsar at 9 to 12 seers per rupee. It is there known as "*khúb kalán*," and is used as a drug in fever and debility.

Grasses.

The grasses of the district are of importance, as in many places there is very little fodder to be had for the cattle (apart from fodder crops specially grown). Unfortunately grasses are poor and scanty, especially in Pindigheb, and good supplies are to be obtained only in areas especially retained for grass production. *Dub* grass is not much found. *Khabal* (Cynodon dactylon), the best of all for horses and cattle, is hardly found at all. This is a good, short, green grass, growing chiefly on the boundaries of fields of good soil, and to be had at all times of the year when rain has

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fallen. *Sawánk* (Panicum colonum) is a longer grass, growing best in places where water has been lying. It is cultivated to a small extent as a cereal, and grows up freely in the crops of the autumn harvest. It dries up after the rains have fully ceased. Up to the time of ripening it is a very good grass, but after that it is little good as it completely dries up. The coarse *dabh* is much the most common. It grows in poor land, but is more harmful than useful. It is of a bright green colour and is eaten by cattle only when nothing else can be got. "*Barán*" is another long grass ripening in the kharif harvest, sowing itself. It is said to be injurious to cattle when unripe, but fairly useful afterwards. Hill grasses, *chitta* and *phalwár*, are the most common fodder grasses.

The most valuable grass of all is perhaps the "*sarút*" (Saccharum munja) which occurs chiefly in loose sandy soil near the beds of torrents, and is generally self sown, but sometimes planted as a boundary, or as a protection from drifting sand. It is especially common in the Sil Soan, where some profit is derived from its sale, enough at least to make it worthwhile in places to leave untilled the land on which it is found. It grows in large stools, often 12 feet high, the lower part being formed of thick reeds called *kána*, out of which springs the *tíllí* or thin part of the stalk, which carries the large feathery white flower and the whole is wrapped round by the leaf called "*munj*." *Kána* is used instead of rafters when wood is scarce, and from it are made the heavy baskets from which the cattle get their feed, as well as chairs, stools and the like. The "*tíllí*" is useful for all light basket work, while the *munj* is the common material for village rope-making.

Fauna.

The largest wild animal found in the district is the leopard, which is occasionally met with in the Kala Chitta and on Sakesar hill. They are usually shot by means of sitting up over a kill or over a goat tied up in the jungle at night. They prey chiefly on the mountain sheep or "úriál," but at times do damage to sheep and goats, and sometimes attack horned cattle also.

The Indian hyæna also occurs in the hills, but is not common. The jackal is occasionally seen and constantly heard in all parts of the tract.

The *úrial* or *húriár* ("oorial") (*Ovis vignei cycloceros*) affords the best large game shooting of the District. *Uriál* are found in the Kala Chitta Range and outlying spurs, in the Narrara hills, and the Salt Range and in a good deal of the ravine country at its base. Even at some distance from the hills they are found, as, for instance, in the north-east corner of the Tallagang Tahsil and among the ravines and low hills throughout the south-west of the Pindigheb Tahsil. Places where the best "úriál" shooting is to be had vary more or less from year to year, but it may be

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said of all the country indicated above that the sportsman is unlucky who in three or four hours' walking does not see a fair amount of game, though he will usually have to work hard and long to secure a really good head. Heads of from 24 to 26 inches are good, certainly well above the average. The *úriál* has the reputation of being difficult to approach, but the difficulty seems to have been a good deal exaggerated. The males and females separate during the rainy months, Sáwan, Bhádon and Assuj (mid-July to mid-October); the pairing season then follows and lasts about five weeks. The young are dropped about the end of April, there being generally two; for the first three or four days they are helpless, and a considerable number are caught, and kept as pets, but almost always soon die. A male of one or two years is called *khíra*, *chapra*, or (at two years) *dúnda* : there is no special word for a three-year-old ; one of four years is *changa*, and one of six *chhigga*, anything above that being a "full male." The *chapra* has horns up to about 10 inches, the *changa* up to about 21; in the *chhigga*, the beard becomes prominent, black at first, but hoary white in very old age. The age can be told from the teeth.

The *chinkara* or ravine deer, (the Indian gazelle, *Gazella beretti*), generally called *hiran*, occurs in the Maira of tahsil Attock, in the south of Pindigheb, and in the ravines in some parts of the Pindigheb plateau, but is not common. They are said to breed twice a year in April-May and October-November. Bucks and does are almost always seen together, and the former seem if anything the more numerous, a point in which they differ from the *úriál*. Their horns are usually about 10 to 11 inches in length, but there are a fair number with heads an inch or two longer. There are no black buck in the district. Hares are to be found on all the low hill spurs, but are not often plentiful.

Birds.

The blue rock pigeon is common, especially in the Salt Range and the Kala Chitta. The Indian stock-pigeon also visits the District in the cold season, and has been shot in July and September. It would seem, therefore, that it does not migrate. Of partridges the *chikor* (*kaunk*) is found in the Kala Chitta, the Salt Range and the Narrara hills, but is not plentiful. The seessee (*susse* or *chinkala*) is plentiful in the lower and more barren foothills and ravines all over the District. The grey partridge (*tittar*) is fairly common everywhere, but the black partridge is found very rarely, if at all. The large sandgrouse, *bhatittar* (*P. arenarius*) is plentiful in Tallagang Tahsil. The small sandgrouse (*P. exustus*) is also fairly common in the stubbles of *bájra* and *moth*.

Quail in large numbers visit the District in spring and autumn. Snipe are rare. The best *jhil* is at Hatti, but they are also shot

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in small numbers in a *jhil* on the Soan near Sháh Muhammad Wali in the extreme north-west corner of Tallagang.

The ordinary bustard or *ubára*, here called *kharmohr*, is fairly common in Tallagang and Pindigheb, especially in the west of the former tahsil, the *tárámíra* fields in the morning and evening being the best place to look for it. The demoiselle crane or *kúlan*, here called *kunj*, is common in the cool months, in the neighbourhood of the Soan, where the natives make a practice of catching them on the wing with a simple kind of lasso made of a long piece of cord with a stone at the end of it. The grey goose (*magg*) is sometimes met with on the Soan. Duck are also found in the season practically wherever there is water. Mallard, teal, pochard, gadwall and the ubiquitous shoveller are amongst the varieties which visit the District.

Although there is thus a large variety to choose from, sport in the District is not good, but game would probably be more plentiful if there were not such a large number of guns always ready to shoot it wherever it is to be found, and if netting and snaring were not such prevalent practices with the natives of the District.

Hawking is a very favourite sport with most of the natives of the upper class throughout the District. In the Pindigheb Tahsil the *ubára* and hares and duck are the favourite quarry, and in the low hills partridges and *chikor*. Throughout the District, however, hawks are flown at almost any game, and many of the species are great poachers. The snaring of birds is also carried on to a great extent, and many of the natives shoot game.

Reptiles.

Snakes are not so common as in many other Districts, but abound in the hills. The commonest kinds are the cobra and karait (*Naja tripudians* and *Bungarus cæruleus*). A brown viper is not uncommon in the lower hills. There are also some non-venomous snakes resembling the Dhámun. Lizards of different kinds are common, including the familiar house lizard or gecko, tree lizards, and several varieties living in holes in the ground, of which the large *goh* is the most important.

Fish.

The commonest fish in the rivers of the District are the *mahseer* and *rohú* and the best streams are the Haro with its tributary the Chablat, and the Soan. There are of course *mahseer* in the Indus, but the best fishing is in the Haro. The fishing has been very much damaged within recent years by dynamiting the pools and by indiscriminate netting, and the number of fish is not nearly so large as it used to be. In 1906 the Northern India Fishing Association was revived and portions of the Haro, Chablat and Soan are now strictly protected. Fish are of no importance to the people as an article of diet.

Insects.

Swarms of locusts (*makri*, *Acridium peregrinum*) often make their appearance in the southern portion of the District, occasionally doing very great damage to trees and crops. The last serious visitation of the kind was in late spring of 1891, when the young wheat crop in Tallagang and Pindigheb was almost entirely destroyed, less serious damage being done in other parts of the District. In Tallagang this is well remembered as the locust year (*makriwálá sál*) from which the agriculturists commonly date events. Locusts have several times recently invaded the District, sometimes in great force, but have come at a season when they could not do very great damage. In the long run perhaps more harm is done by the *toka*, a kind of cricket which is always present in the summer in great or small numbers, and sometimes does much damage to the autumn crops. White-ants also injure the young crops in seasons of drought, besides doing damage to other property. The honey-bee is common in the Salt Range, and the honey is much appreciated by the people, though somewhat insipid.

Temperature and climate.

There is no record of the temperatures in the District at different times of the year, but it is certain that the extremes of heat and cold are very severe. The high upland plateau which forms the whole of the District south of the Kala Chitta Range is baked under a hot sun in summer, and in winter a bitter north wind prevails, the cold being often intense. In Attock Tahsil the summer is short, and the cold weather long and severe. But the climate is not unlike that of the ordinary Western Punjab District. The cold weather comes to an end in April, about the middle of which month the temperature begins to be uncomfortably high, and continues to rise through May and June till the monsoon breaks, usually in the last week of June or the first week of July. With the coming of the rains the temperature falls considerably, though the damp heat which follows any cessation of the monsoon for more than a week or ten days is often severe. In the western portions of the District, among the rocks of Attock, the sandy slopes of Jandal, and the low hills of Narrara and Makhad, the summer heat is of the most intense description, and is found almost unbearable even by the natives of the tract. The wells and tanks dry up, hot winds blow, and the glare of the sun is terrific, reflected as it is by white sand and almost red hot rocks. The breaks in the rains are much longer, and even in August sometimes the country appears quite dry and resembles a furnace. The inhabitants are nevertheless a fine robust race, but in Pindigheb and Tallagang they suffer much from tapeworm. The rains generally come to an end about the beginning of September. Towards the end of that month the nights begin to be sensibly cooler, and the beginning of the "cold weather" soon follows about the middle of October, though the heat in the sun

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remains considerable for some weeks longer. The end of September and the beginning of October after the cessation of the rains are sometimes feverish. The latter half of October and November are generally the most delightful part of the year. There is little rain, and the air is cool with bright sunshine. Through the winter months the District enjoys almost perfect weather with bright days and cold clear nights with generally some frost in the two coldest months, interrupted at more or less frequent intervals by spells of cold, raw, rainy weather due to the winter rains, which usually begin soon after Christmas, and end with February, though earlier and later storms are not uncommon. Towards the end of March the sun again becomes powerful. East winds, which are very trying, are often prevalent in the cold weather. The months from April to August are notably the healthiest. Pneumonia and bronchitis, at other seasons prevalent, are then less rife, and fever also is less severe. The district on the whole is very healthy.

Statistics of rainfall are given in Tables 3, 4, 5 of the statistical volume of the *Gazetteer*. The recording stations are at Tahsil headquarters and these stations are not well placed to record the average rainfall of the whole tahsil. The rain-gauge station at Tallagang is situate at the extreme west of the tahsil and the rainfall recorded at it is heavier than that of the tract which it represents. Probably in Attock Tahsil there is more rain in the outlying parts than in Attock itself, but appearances are deceitful, and Attock, in the hot weather, even after a thorough soaking, never obtrudes the fact. In Pindigheb, on the other hand, it may be said that nowhere in the tahsil is the rainfall greater than at Pindigheb itself. General rain over the whole tahsil is uncommon, one village or one tract getting a soaking while the adjoining country gets little or nothing. The Makhad hills are often left without any rain at all when the rest of the tahsil is doing well. Generally the rainfall seems to be very capricious. The further the tract lies westwards from the Himalayas the less rain, as a rule, it gets. The rainfall of the whole district is much less than in the adjoining tahsils, Rawalpindi and Gujar Khan of Rawalpindi District. But the broken nature of the country and the many ridges and hills which start up cause local exceptions to this rule. Lawa, for instance, in the extreme south-west under Sakesar gets as much rain as any part of the southern tract, while many villages under the Kala Chitta do not seem to profit by their situation. Overshadowing hills seem in some parts to attract rain, in others to repel it. The rainfall seems also to follow the river valleys in a curious manner. The valleys on the Soan banks get much more rain than those a few miles distant from it.

Rainfall.

For the District as a whole the rainfall is somewhat scanty and very uncertain, varying greatly from year to year. All that can

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be said for Tallagang is that the rainfall varies from about 20 inches in the more favoured eastern parts to 15 or even less in the great western plains. Tallagang East may be put down as getting about 18 inches in an average year, and Tallagang West about 15 inches. The rainfall at Pindigheb closely approximates to that in the better parts of Tallagang. The rainfall at Fatteh Jang is much greater than that of the rest of the district, but is far less than at Rawalpindi and Gujar Khan. It averages about 23½ inches per annum. The average yearly rainfall at Attock is about 18½ inches. What is almost as much of importance as the amount of the rain is its distribution in time. A small rainfall well distributed is infinitely superior to a heavy fall crowded into a few abnormal storms, with long intervals of aridity both before and afterwards. What is required is a heavy fall in the first or second week in July, followed by occasional and regular showers, and finally a big downpour in the middle of September, so as to ensure the germination of the wheat crop and the ripening of the kharif. It is this September rain which is all important, as on it depends the spring crop, which makes or mars the prosperity of the district. Provided the wheat crop is secured, it does not much matter, except in parts of Pindigheb and Fatteh Jang, and there to a less degree, what happens to the kharif. For ripening the wheat heavy rain is required in January and subsequent showers all go to help. In Attock Tahsil as a rule the cold weather rains are very regular. It was their failure in 1902 which made the rabi of that year so bad. The moist soil of the Chhachh and the light sand of the Sarwála circle keep their vigour a great deal longer than the thirstier but stronger lands of the Nala circle. Thus in 1903, when the winter rains did not come till early in March, the Chhachh and Sarwála circles had bumper crops, but the failed area in the Nala circle ran as high as 43 per cent.

The rainfall in Fatteh Jang is generally sufficient to mature barani crops, but is often ill-distributed. Heavy rain in July and August will be followed by a break in September, or a failure of the early monsoon is followed by a burst in September too late to save the crop, or good autumn rains are followed by bad winter rains. The best year of all was 1893-94, when the total rainfall was nearly 40 inches. The September rain is the most precarious of all. It may be said with confidence that if the average rainfall with the average distribution fell every year there would be no cause for anxiety about the "barani" crops of Fatteh Jang. In Pindigheb also the September rains are everywhere precarious, and it is common for the rabi crop to be left unsown for want of moisture. The winter rains are generally late, and in a bleak hot country like this where the kharif is nothing and the rabi everything, it is the September rains and the early winter rains which determine the character of the year.

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In Tallagang too the critical month is September, and the rabi crop is all important. The autumn rains which provide the moisture necessary for sowing appear to be much more uncertain than the Christmas rains. Locally the following names are sometimes used for the various seasons. The hot season is called "Unhála"; the rains, as elsewhere, "Barsát"; the spring "Khuli Bahár," and the autumn and winter "Thandi Bahár."

Earthquakes, floods.

No distinctive cyclones or earthquakes are on record.

Earthquakes do occur, very rarely, but though perceptible enough, they are too slight to do any appreciable damage.

Floods are of frequent occurrence in the Indus, but seldom do serious damage. The only flood that caused immediate serious loss and permanent damage was the great flood of 1841. The downward rush of water caught the villages from Yasin to Sirkah, was headed up in the Attock gorge and ran back upon the villages from Jabr to Shadi Khan. The former villages were wholly swept by the flood; in the latter half the village lands were covered with sand and boulders and half escaped. Though such a calamity is rare and quite unknown in the narrow channel south of Attock, floods rendering it extremely dangerous to cross the river are very frequent, and serious loss of life is not uncommon. In 1889 a marriage party of 78 persons, including some bandsmen of the Guides, were crossing the Indus at Attock, when a storm and flood overtook them and sunk the boat. Fifty-two persons, of whom twenty-four were women, were drowned.

Section B.—History.

Archæological remains.

The materials for a history of the District are scanty, their interpretation doubtful, and the story they tell very disconnected. It is only in and after Sikh times that the history of the District is anything but meagre. It will be convenient to notice first the archæological remains.

The site of the ancient city of Taxila, mentioned by the historians of Alexander's campaigns, has been identified by General Cunningham and other authorities with the ruins near Shah-dheri on the borders of the Attock Tahsil within Rawalpindi District.

Hasan Abdál.

Hasan Abdál, which lies on the Grand Trunk Road, twenty miles east of Campbellpur, is probably of much more interest to the casual observer than Dheri-Sháhán. The hill of Hasan Abdál, it is said, has been celebrated since the time of Akbar for its beauty. The Hasan Abdál hill has, however, as a matter of fact, no beauty whatever. It is simply a mass of rock and shingle, bare, ugly and forbidding.

The presence of several fine springs of water made it possible to make pretty gardens in its neighbourhood, and in times past the garden of Wáh, so named from the cry of admiration, said to have been extorted by its appearance from the Emperor Akbar, was possibly once very beautiful of its kind. It used to be one of the resting-places of the Emperors on their way to Kashmír; but it is now a tangled wilderness, exactly as described by Colonel Cracroft 25 years ago, and its condition does not reflect much credit on those to whom it was made over.

Colonel Cracroft thus describes it : "Time has left nothing but the ruins of buildings, parterres covered with grass and weeds, choked reservoirs, a jungle of trees, a scene of desolation in the midst of vegetation." It is little better now save that the *báráduri* has been put into tolerable repair.

To the north-west of the Hasan Abdál hill numerous springs of clear, pure, limpid water gush out of the ground, and form a clear stream which flows past the east of Hasan Abdál and falls into the Wáh stream. The tank of Bába Wali, or as it is now generally known Panja Sáhib, is at the foot of the Hasan Abdál hill, and is filled by one of the springs above alluded to with beautiful clear water which constantly flows through it : it is kept full of fish and is surrounded by brick temples, and is much frequented and well known. At one end of the tank, there is a rude representation of a hand in relief on a rock, from underneath which the water flows into the tank. The Sikhs ascribe this mark to their founder Bába Nának who (they say) summoned the spring from the top to the bottom of the hill by placing his hand on the rock in question and invoking it, and that the impression remained ever since. The fact that the hand is *in relief* is of course neglected in this legend. This is the story generally told by the common people in the neighbourhood, but the full legend is given in General Cunningham's account of Hasan Abdál.

Close to the Panja Sáhib tank, a little to the north of it, is the well known enclosure, containing a tomb, said to be that of one of Akbar's wives. There are two very old cypress trees growing beside the tomb, but the whole enclosure has the same decayed look which characterises the garden of Wáh. It is, however, curious and interesting, and deserves a visit.

The following is General Cunningham's account of Hasan Abdál as abridged in the last edition of the *Ráwalpindi Gazetteer:—*

"At 11⅝ miles to the north-west of Taxila, Hwen Thsang visited the tank of the Serpent King Elapatra. It was 100 paces or about 250 feet in circuit, and its pure and limpid waters were fringed with lotus flowers of different colour. Both the direction and distance of the Chinese pilgrim point to Hasan Abdál, which

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bears north-west, 10 miles distant from Sháh-dheri by the new main road, and at least 11 miles by either of the two old roads. This agreement is fully confirmed by the presence of the famous spring of Bába Wali or Panja Sáhib, as it is now called by the Sikhs. The shrine of the saint is situated on the peak of a lofty and precipitous hill, about one mile to the east of the town. At the north-west foot of this hill numerous springs of pure limpid water gush out of the ground, and form a clear and rapid rill which falls into the Wáh rivulet, about half a mile to the west of the town. The tank of Bába Wali or Panja Sáhib is a small square reservoir of clear water and generally full of fish. It is surrounded by small dilapidated brick temples, and on the west side the water gushes out from beneath a rock marked with a rude representation of a hand, which the Sikhs ascribe to their founder Bába Nának. The place has been briefly described by Elphinstone, Moorcroft, Burnes, and Hugel, but the legend of the spring is given by Moorcroft alone; both he and Elphinstone take Bába Wali and Hasan Abdál for one and the same person. But according to the information collected by General Cunningham, Bába Wali Kandhári was a saint from Kandhár, whose 'Ziárat' or shrine is on the top of the hill, while Hasan, surnamed Abdál, or the mad, was a Gujar, who built the Sarái which still goes by his name, and whose tomb is at the foot of the hill."

In the time of Hwen Thsang, A.D. 630, the legend of the place referred to the Naga or Serpent King of the fountain, named Elapatra. Whenever the people wanted rain or fine weather, they proceeded to the tank in company with some Saramanas or ascetic Buddhists, and snapping their fingers invoked the Naga's aid in a mild voice, and at once obtained their wishes. This is the Buddhist legend, which was probably succeeded by a Brahmanical version, and that again by a Muhammadan one, and the last in its turn has given way to the Sikh legend related by Moorcroft. According to this accurate traveller, the block of stone from which the holy spring gushes forth, is "supposed to have been sanctified by a miracle wrought there by Nának, the founder of the Sikh faith. Nának, coming to the place fatigued and thirsty, thought he had a claim upon the hospitality of his brother ascetic, and invoked the spirit of Bába Wali for a cup of water. The Muhammadan saint, indignant at the presumption of an unbeliever, replied to his application by throwing a stone at him of several tons weight. Nának caught the missile in his hand and then placed it on the ground leaving the impressions of his fingers upon its hard substance. At the same time he commanded water to flow from it, and this constituted the rill here observable." It is from this story that the place has received the Sikh name of "Panja Sáhib," or the holy "hand-mark" of Nának. Such is the usual story of the Sikh priests, but a *fakir* at the tomb

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of Hasan Abdál told General Cunningham the following curious version of the legend :—

"Janak Rája had two servants, named Moti Rám and Nának. On the occasion of a particular sacrifice the Rája appointed separate duties to each of his servants, and amongst them Moti Rám was appointed to keep the door, and Nának to remove the leaves in which the food had been wrapped. During the ceremony a dog rushed in through the door towards the Rája. Moti Rám followed the dog and broke its back with a stick, when he was severely reproved by Nának for his cruelty. Rája Janak then addressed his two servants saying, 'Moti Rám you have behaved as a Malechh, but you, Nának, as a man full of compassion. In the Kal-jug you will both be born again; Nának in Kálu Khatri's house in Talwandi, and Moti Rám as Wali in the house of a Mughal in Kandhár. When Bába Nának was reborn, he went to Wali's house in Kandhár, and said, 'Do you remember me?' 'No,' said Wali, 'but do you open my eyes.' Then Nának opened the eyes of Wali, and he saw and remembered his former birth, and fell at the feet of his former companion. Nának then turned Wali into wind and himself into water, and they both came to the town of Haro, which is now called Hasan Abdál, where Nának placed his hand on the rock, and they resumed their shapes. But ever since then the pure water has never ceased gushing forth from the rock, and the pleasant breeze has never ceased playing about the town of Haro."

In this form of the story General Cunningham recognizes a genuine Buddhist legend, which may be almost completely restored to its early form by substituting the name of Buddha for that of Nának, and the name of the Naga King, Elapatra, for that of Moti Rám. As to the hand-mark upon Bába Nának's stone, an explanation amusingly suggestive of Scott's Antiquary is given by Mr. Delmerick. The story told by many, even devout Sikhs being among the number, is that one Kamma, a Muhammadan mason, cut the mark upon the stone for his own amusement, and that on one occasion during the reign of Ranjít Singh, when a raid was made upon the village of Hasan Abdál by a body of Sikhs, all fled except one Naju, a *fakir*, who, in order to save himself, boldly declared that he was one of Bába Nának's *fakirs*. Asked how he came to know of Bába Nának, he invented the fable of the saint's miracle and appealed in proof to the hand-print on the stone. The Sikhs believed him, and set up the stone. Many highly respectable residents of the town admit that before Ranjít Singh's time there was no shrine or place of Hindu worship at Hasan Abdál.

On leaving the Nágar fountain, Hwen Thsang proceeded about five miles to the south-east, to a gorge between two Báoti Pind.

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mountains, where there was a *stupa* built by Asoka, about 100 feet in height. This was the place where Sakya Buddha was said to have predicted the period when the future Maitreya Buddha should appear; besides the *stupa* there was a monastery which had been in ruins for a long time. The distance points to the neighbourhood of Báoti Pind, where are the ruins of a large town and of several Buddhist monuments. But the bearing is east, which it certainly should be, as a south-east direction would have carried the pilgrim far away from the hills into the open plain about half way to Kála-ká-Sarái. Báoti Pind is a small village situated on an ancient mound, or *pind*, on the right bank of the Báoti or Boti nullah, and at the west end of a rocky hill which stretches as far as the Haro river. In the gorge between the Báoti ridge and the Hasan Abdál ridge, there is a small hill forming three sides of a square which is usually called Langarkot, but is also known as Srikot. This was the name of the fort, which was formed by closing the open side of the hill with a strong wall. The north side is about 1,500 feet in length, and each of the other three sides about 2,000 feet, which would make the whole circuit of the place just one mile and a half. The remains of numerous buildings and tanks are traceable in the lower part of the fort, and of walls and towers along the crests of the ridge. The hill is everywhere very rocky, but on the north and east sides it is precipitous and inaccessible. The highest point of the ridge is at the north-east angle, which is about 300 feet above the fields. On this point there are the remains of a large *stupa*, which is visible for many miles all round.

This, however, is not the Maitreya *stupa* of Asoka, as a deposit excavated from its centre by General Cunningham was found to contain a gold coin of about A.D. 500 or 600, which is of very common occurrence in the Punjab and N.-W. India. The other objects were a small flat circle of gold, with a bead drop in the middle, a minute silver coin much worn, some small coloured beads, and some fragments of bone. The state of this deposit showed that it had never been disturbed, and the presence of the gold coin therefore proves that the *stupa* is not older than A.D. 500, and cannot be the famous *stupa* of Asoka. The ancient coins, however, which are found among the ruins in considerable numbers, show that the place must have been inhabited long before the time of Asoka, and the natural advantages which the site possesses in its never-failing springs of water are so great that there can be little doubt that the position must have been occupied from the very earliest time, and General Cunningham has little or no doubt as to the identification of the ruins as the site visited by Hwen Thsang, even though it is now impossible to ascertain which of the ruined *stupas* is the right one. The name of Báoti Pind is most probably, General Cunningham thinks, a modern one,

but that of Langarkot an old one. The people have no tradition about the place, except that the fort had belonged to Rája Sirkap, the antagonist of Rasálu whose name is associated with all the old cities in the Sindh-Ságar Doáb.

Maira.

The country to the north of the Salt Range contains but few remains of archæological interest: there is an old Buddhist well at Maira, a village at the foot of the range, which has been described by Cunningham at pp. 93-94, Vol. V, Archæological Survey Reports. The well is square-mouthed for the topmost 10 feet, and contained Kharoshthi inscriptions on three sides, of which the report gave several versions in plate XXVIII accompanying it. Cunningham thought he made out, almost certainly, the date, Samvat 58, but that nothing more could be made out, until the inscriptions were removed from the well and cleaned: two of them were so removed by Mr. J. P. Rawlins of the Punjab Police, and are now in the Lahore Museum: they are dealt with by Dr. Führer in the Progress Report of the Archæological Section, North-West Provinces and Oudh, for 1897-98; but unfortunately the only portion readable with certainty proved to be the word Sramanera, or "Buddhist lay brother." The third inscription, it is presumed, remains in the well.

There is another small square-topped well about 8 miles south-east of this, close to the village of Qádirpur, in the Tallagang Tahsil, which is also probably very old: the people there say that it was not constructed in their time, or the time of their immediate predecessors, but was brought to light by a villager ploughing his fields a good many years ago, having been previously covered. It has no inscriptions.

Kalar.

Some twelve miles east of the junction of the Soán with the Indus, between Makhad and Kálábágh, and about three miles due south of the village of Sháh Muhammad Wálí in the north-west corner of the District, is an old temple called Kálar or Sassí da Kallara, which has hitherto escaped notice. It is situated at a height of about 1,100 feet above sea-level, on the edge of a hillock rising steeply from the bank of the Kas Letí, one of the torrents, tributary to the Soán stream, which descend from the northern face of the Salt Range; it here passes through a rough tract of hillocks and ravines. The temple is in a ruinous condition, due largely to the gradual wearing away of the soft sandstone hillside on the edge of which it stands and its further decay will probably be rapid.

A few of the principal measurements are as follows:—exterior: extreme length, including portico, 22¼ feet; extreme breadth, 16 feet; height 23½ feet, excluding the pile of bricks on one corner. Interior: the temple is a square of 7¼ feet, and the portico had apparently almost the same floor measurements.

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Height from floor of temple to top of dome, $14\frac{1}{4}$ feet; to top of upper chamber, including the thickness of the beams above it, $18\frac{1}{4}$ feet.

The temple is built of large bricks, two inches thick, varying in length from $15\frac{1}{2}$ to 17 inches or more, and in breadth from 10 to $10\frac{1}{2}$ inches. On the outer walls these bricks are elaborately carved in decorative designs of a simple character.

Within the temple (which was reached through a portico divided from it by a short passage), at a height of 7 feet from the floor, is a band of ornamentation 8 inches deep, repeating part of that on the outer walls. The interior of the temple and portico is otherwise plain; it shows signs of having been once plastered.

Ten feet from the floor the corners are filled with six courses of overlapping bricks, which gradually reduce the opening to a circle. Above come thirteen courses, nine laid flat and the last four on their edges; these form a dome ending in a small hole, of which the covering is no longer in place, the dome being otherwise intact.

Above the dome is the roughly laid brick flooring of a small upper chamber, only $3\frac{1}{2}$ feet high, of the roof of which a few weather-worn beams still remain in place. Everything, practically, above this has disappeared. On one corner stands a rough pile of bricks, about 5 feet high, but this was evidently no part of the original building.

The temple faces due east, commanding a wide view in that direction as well as to the north. Immediately in front is the steep slope of the hill, which has evidently lost much by erosion since the temple was built. One side of the portico has been completely undermined, and has fallen, carrying with it the roof of the porch; the slope below is covered with their débris.

In the graveyard of Sháh Muhammad Wálí stands a block of *kaniat* (tufa) stone, 12 by 8 inches in section; part is buried in the ground, but its length seems to be about 5 feet, and it is only part of the original block. This stone is said to have stood erect in the centre of the portico entrance of the Kálar temple; when the portico collapsed the stone went with it down the hill, and this, one of the pieces into which it was broken, was eventually carried off by a man of Sháh Muhammad Wálí for use in building a house. He fell ill and died soon afterwards, and the villagers, ascribing his fate to the anger of the spirits guarding the temple, disposed of the stone by using it as his gravestone. The block is merely a rough-hewn slab, and can hardly have been used as a pillar as is stated; it was more probably the sill across the entrance of the portico.

There is now no sign of image or pedestal of any kind in the temple; but the floor is choked with a mass of rubbish, which has

not been cleared out. Partial excavation, to ascertain the level of the floor, yielded nothing of interest.

Close to the walls of the building was found a coin of Venka Deva, whose reign is placed by Cunningham in the last part of the 8th century A.D.

The whole of the flat top of the hill on which the temple stands, about an acre in extent, is covered with the ruins of houses, built apparently as village houses are now, of rough blocks of sandstone in mud, without mortar. The nearest existing village is that of Sháh Muhammad Wálí, three miles away; adjoining it is a low mound of some size, covered with broken pottery. This site called Kalrí, is certainly a very old one, and may have had some connection with the Kálar temple, but nothing has been found to show its date.

Of the origin of these places nothing is known locally. In the popular mind the Kálar temple, otherwise Sassí dá Kallara or Sassí dí Dhaular, is connected with the well-known folk-tale of Sassí, the king's daughter, and Punnún, the camel-driver of Mekrán; but it may safely be said that the building has nothing to do with this popular story, and that the connection was suggested merely by its name.

Photographs of the temple were sent to Dr. M. A. Stein, who writes as follows: "In style the temple closely resembles two small shrines standing amidst the ruins of Amb, Sháhpur District, but these are of a kind of tuffa stone. I do not think the details visible in the photographs permit a close dating, but seventh to ninth century of our era would probably be an approximate date. The large size of the bricks points to the earlier limit. * * * * It is evident from the general look of the structure that it was a Hindu temple. Closer examination of the cella might show whether it was dedicated to Shiva or Vishnu."

On the materials available no more definite conclusion as to the date of the temple appears to be possible. Dr. Stein refers to the small shrines at Amb. In style of ornamentation, as well as in general arrangement, their resemblance to the Kálar temple is striking, and it can hardly be doubted that their date is approximately the same. Of these Amb temples, which lie about fifty miles due south from Kalar, Cunningham writes that they "are all of the Kashmirian style, but almost certainly of late date, as all the arches have cinquefoil instead of trefoil heads, which is the only form in Kashmír. I think, therefore, that their most probable date is from 800 to 950 A.D." (At Kalar there is no arch remaining.)

The temple also much resembles the five small temples at Káfir Kot (about sixty miles to the south-east) described in Archæological Reports, xiv, 26—28.

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The central plateau is innocent of archæological remains.

The northern portion of the district from its geographical position is associated with much of great interest in the history of India.

The armies of each successive invader from the west or north-west swept across the Chhachh plain, and down southwards right across the Attock Tahsil, and this to a great extent accounts for the fact that the races inhabiting it are much mixed and that they are nearly all Musalmáns. No old and archaic forms could exist in the constant turmoil in which the District has been involved until within a very few years of the present time. The names of Alexander, Mahmúd of Ghazni, Bábar and "Tamurlane" or Timúr, are all closely connected with the District, and as will have been already seen from the description of places of antiquarian interest given above, relics of Buddhism are common and of great archæological value. Many of the legends of the great and mythical Rasálu are connected with places within this tract.

The history of the District up to the time of Alexander is of interest only to the antiquarian. General Cunningham has elaborated theories, partly from what appear to him to be similiarities of names, as to the original inhabitants of the District, and as these are the views of so great an authority they deserve full notice.

General Cunningham holds that the Takkás were the earliest inhabitants of this part of the country after the Aryás, who are supposed to have come into it about 1426 B.C. The tract between the Indus and Jhelum, known as Samma, is supposed to have been held by Anavás of the Timúr race, Pesháwar and the country west of the Indus, by the Ghandharee.

The Takkás, an early Turanian race, are believed to have held the whole or the greater part of the Sind-Ságar Doáb. From this tribe General Cunningham, with some probability, derives the name of Taxila, or Takshasila, which, at the time of Alexander, was a large and wealthy city, the most populous between the Indus and Hydaspes (Jhelum) and is identified beyond a doubt with the ruins of Sháh-dheri or Dheri-Sháhán, a few miles to the north of the Margalla pass in the district of Ráwalpindi. So far, General Cunningham's theory as to the early population of the District seems reasonable enough; but he goes on to assert his belief that already, before the time of Alexander, the Takkás had been ousted from the neighbourhood of Taxila by the Awáns. This theory he builds upon the scanty foundation existing in the similarity of the name Awán or "Anuwán," as he would read it, with that of Amanda, the district in which, according to Pliny, the town of Taxila was situated. The traditions of the Awáns are so strikingly contradictory of this theory, as to deprive it of much, if not all, the weight with which the authority of General Cunningham would invest it.

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The Takkás or Takshâh Scythians probably overran the northern portion of India, somewhere about 600 B.C. They probably became incorporated with the tribes of the country and turned Buddhist, a religion which they professed at the time of Alexander's invasion. Landa, King of the Prásu, was of this race; this is about the time of the foundation of Gaznipur by the Bhatti Zadávas.

About 500 B.C. Darius conquered Western India. In 331 B.C. came Alexander's invasion. At this time Abisares ruled the country, north of the Ráwalpindi District, and Porus ruled that east of the Jhelum river. Taxiles ruled the tract lying between the Indus and the Jhelum.

An attempt has been made to show that Alexander never passed through the District at all. It is conjectured that the site of Taxila in Alexander's time was at Akra in the Bannu District, and that Alexander crossed the Indus at Kundian in Mianwali District, whence there is a clear route over the plain country at the foot of the Salt Range right away to the Jhelum. These conjectures, however, must be set aside, for if there is anything certain in the ancient topography of the Indus region it is the identity of the Sháh-dheri site with Taxila. Alexander and his carts, carrying large boats in sections, almost certainly crossed the Attock Tahsil. But Alexander simply marched through the District, disappeared down the Jhelum and left no trace of his influence behind. There are no Greek monuments in the District and the people of the tract have heard nothing from their forefathers about the great conqueror; even if they know the name of "Sultan Sikandar" it is only vaguely as that of a great king of bygone ages. At the time of Alexander's invasion, at least the northern portion of the District appears to have formed, nominally at any rate, part of the kingdom of Magadha. Fifty years after Alexander's visit the people of Taxila are said to have rebelled against Bindusara, King of Magadha. Their subjection was effected by the famous Asoka, who resided at Taxila as Viceroy of the Punjab during his father's lifetime. His edicts are dated about the middle of the third century B.C. From the reign of Asoka, the Buddhist Emperor of Upper India, we may suppose Buddhism to have taken root in the Northern Punjab, but Taxila again fades from history till A.D. 400, when it was visited as a place of peculiar sanctity by the Chinese Buddhist pilgrim, Fa Hian. After Asoka there is no direct mention of the District, and the period is one of great darkness. Probably the whole tract formed part of the kingdom of Eucratides the Greek, who not long after Asoka's reign extended his power over the Western Punjab. The Indo-Greek kings held the country after him, being at last ousted by the nomad hordes of Indo-Scythians. At any rate when Hwen Thsang, the most famous of the Chinese pilgrims, visited the District

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in A.D. 630 and again in A.D. 643, the period was one of the decay of Buddhism. The Brahman revival, to which India owes its present form of Hinduism, had already set in, in the early years of the fifth century, and must have been at its height in the days of Hwen Thsang. From this time the light afforded by the records of the Chinese pilgrims fails, and a long period of darkness swallows up the years that intervened before the Muhammadan invasions and the commencement of real history. The country was under the dominion of the Hindu kings of Kashmir, and probably so remained till the end of the 9th century. After that the District formed part of the kingdom of the Brahman rulers of Kabul, Samanta Deva and his successors (more accurately designated as the "Hindu Sháhis of Kabul") who remained in possession till the times of Mahmúd Ghaznavi. Anand Pál and Jai Pál, of whom the histories of Mahmúd's invasions make mention as kings of Lahore, were Sháhi kings. In the meantime the Gakhhars had grown strong in the hills to the east, but their dominion never extended beyond the Margalla pass and the Khairi Murat.

The Muhammadan invaders.

The first event of authentic history peculiarly connected with this District is the battle between Mahmúd Ghaznavi and the Hindu army under Pirthwi Rája, in A.D. 1008, in which the invader was nearly defeated by the impetuosity of an attack made upon his camp by a force of 30,000 Gakkhars. This battle, which decided the fate of India, is said to have been fought on the plain of Chhachh, near Hazro and Attock on the Indus. It ended in the total defeat of the Rajput confederacy, and India lay at the mercy of the Muhammadan invaders. It is probable that Islam in the District dates from this time. Knowing what we do of Mahmúd, it is certain that Islam would be imposed on all as the only way of obtaining peace, though these unwilling converts may have reverted to Hinduism as soon as his back was turned, and there are indications that the general conversion of the people took place some centuries later. During the reigns of the succeeding Sultans of Ghazni there were many invasions into India, but though the District lay in the path of the invading hordes there is no special event on record connecting them with the District. The northern portion of the tract was in 1205 the scene of the quarrel between the Gakkhars and Shahab-ud-din Ghori. Having defeated and massacred the Gakkhars and restored order in India Shahab-ud-din, returning westward, was camped on the banks of the Indus. His tent being left open towards the river for the sake of coolness, a band of Gakkhars swam across at midnight to the spot where the king's tent was pitched, and, entering unopposed, despatched him with numerous wounds.

Throughout the 13th century Ghaznavide and Afghan incursions continued. In the 14th century the Mughals came. Timúr marched across Attock Tahsil, and left all India in confusion.

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In 1519 A.D. Bábar marched through the District and crossed the Soán on his way to Bhera, Khushab and Chiniot. He was often in the District again. On his 5th invasion in 1525 he marched along the foot of the hills from the Haro to Sialkot, and notices the scarcity of grain due to drought, and the coldness of the climate, pools being frozen over.

Tribal History.

But all this drum and fife history has little internal connection with the history of the tract. The great portion of the District lying south of the Kala Chitta was out of the track of the invading armies, and the various tribes rather propitiated the foreign conquerors by gifts of horses and hawks than invited attack. The Chhachh was a desolate marsh, and no part of the District was rich enough to excite the rapacity of Afghans and Mughals. The real history of the District is tribal. The Janjuás are the first who appear to have been in dominant possession of the country. Nothing is known of the history of their kingdom, but their present distribution and tradition encourage the belief thatt hey held the whole country north of the Salt Range between the Indus and the Jhelum. Bábar in his memoirs says that the Janjuás had in 1519 A.D. from old times been the rulers and inhabitants of the Salt Range, and of "the *ils* and *uluses*" which are between the Indus and the Jhelum. Their power was exerted in a friendly and brotherly way over "Jats and Gujars, and many other men of similar tribes, who build villages, and settle on every hillock and in every valley." They took a share of the produce fixed from very remote times, never varying their demand. In Ráwalpindi District they were dispossessed by their ancient enemies the Gakkhars. In this District the first successful attack on them was probably made by the Khattars. At the same time bands of Afghan invaders came from across the Indus and settled on the river bank. The Khattars claim to have come to the District with the earliest Muhammadan invaders, and were probably originally natives of Khorasán. Whatever their origin and whatever their connection with the Awáns and the Khokhars they were probably established in the District before the advent of the former tribe. The Awáns are said to have entered the District from the south by the way of the Salt Range and to have spread to its northern limits. While they were settling down in this tract and confining the Khattars to the country they now possess the Alpials seem to have been wandering about in the Khushab and Tallagang Tahsils before finally settling down in their present home on the upper Soán. The Ghebas too were migrating from the south, and about the beginning of the 16th century took possession of the present Gheb ilaka. The Johdras also may have come about the same time. The probability is that the Khattars dispossessed the Janjúás of an outlying portion of their dominions, that the Awan invasion was the first really vital blow to Janjuá power in the

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District, and that their immigration continued for many years. With them came other wandering tribes, Alpials, Ghebas and Johdras, who held their own with the more numerous Awáns, or aided by later reinforcements wrested from them portions of the country they had seized. The fortunes of each tribe must have fluctuated greatly, and each must have gained, held and lost many different blocks of country before they finally settled down.

Mughal rule.

This process was probably going on during the Mughal rule. The District was then included in the Sind-Ságar Sarkár, which included the whole of the Sind-Ságar Doáb. The Aín-i-Akbari throws but little light on the state of the tract at that time. The whole Sind-Ságar Doáb was divided into forty-two *mahals* or parganas. From these the Awán, the present Awánkári, held by Awáns and paying Rs. 10,399 revenue can be identified as including Tallagang Tahsil and part of Sháhpur; Attock Banáras, the name given to Attock by Akbar to distinguish it from Katak Banáras at the other extremity of the empire, probably comprised Chhachh and the upper part of the Khattar country; Neláb included the rest of the Khátar and some territory trans-Indus; and Akbarabád Terkhery (Takhtpari) was made up of parts of Ráwalpindi, Fatteh Jang and Gujar Khan. The Gakkhars at one period appear to have extended their rule over Fatteh Jang, Soán and Asgam. But the Mughal sway was always more nominal than real. They appear to have been content to levy revenue and there is nothing to show that any serious government was attempted. The whole District paid revenue of only about half a lakh of rupees, and the heads of each tribe were practically independent though tributary princes. There is no account in the Aín-i-Akbari of any tribe inhabiting the District. The Mughal emperors constantly passed through Attock Tahsil on their way to their favourite summer resort in Kashmir, but the District was not a place worth holding and administering.

Later Mughal rule.

During the rule of the later Mughals the District was prominent merely as the road by which the invading armies of Nadir Sháh, Ahmed Sháh, Timúr Sháh, Durani, and Zaman Sháh advanced to Delhi. The Court of Delhi was too much engrossed in its luxuries and pleasures to attend to any enemy until that enemy was at its gates, and the invaders hurried on through the District without opposition from the Mughals or from the local population. The great tribes of the District were left to their own devices amidst the turmoil of the empire. The tribal heads were considered as, and enjoyed the privileges of, independent chieftains, paying no revenue to the Government of the day further than an occasional present of a horse, a mule or a hawk by way of nazrana or tribute. In the decay of the Empire the local tribes waxed more and more independent in the absence of any settled government. None of the Sikh *misls* had their home in the country north of the Jhelum, and the District long remained more or less nominally under the rule of the Duranis.

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The Sikhs.

Meanwhile the Sikh power was steadily growing and advancing. In 1765 Gujar Singh, Bhángi, had defeated the Gakkhars at Gujrat. In a few years he crossed the Jhelum, extended his power to Ráwalpindi and subjugated the warlike tribes of Ráwalpindi and the Salt Range. Hardly had the Sikhs well established themselves in Ráwalpindi before the more valuable portions of the District came under their sway. The rich Soán ilaka of Fateh Jang was at once seized by Sardar Chattar Singh, Sukerchakia, and its history is that of Ráwalpindi. But there was little to tempt Sikh avidity in the rest of the District, and it was not till Sikh power was consolidated under Maharaja Ranjit Singh that the District as a whole came under Sikh dominion. The Attock Tahsil and the north of Fatteh Jang lay across the road to Pesháwar, and the Sikhs took it under direct management from early in the 19th century. Revenue was collected by appraisement, and only at a later date were leases given. The country remained off and on under the management of Bhai Máhn Singh till annexation. But the rest of the District, after the break up of the Mughal empire, and until Maharaja Ranjit Singh was firmly established as ruler of the Punjab, was the battle-ground of the strong tribes which still own it. The Sagri Pathans from Kohat drove the Awáns out of Makhad and the other tribes, Jodhras, Ghebas, and Khattars settled down to the limits which substantially form their boundaries to this day. To this tract the Sikhs came about 1789, but their rule extended to these rude tribes at a comparatively late date, for the people were hardy and warlike, and the barren desolate plains presented little hope of profit to the Sikh Kárdárs of Lahore. Even up to the day when the British Government was introduced into the tract the Sikh system in its completeness was never introduced. Elsewhere the Sikhs enforced a rude and imperfect order, but this tract was too distant to make entire subjection of any strategical importance, and too poor to repay the cost of good government. The task of breaking the prominent chieftains and reducing to order and submission the compact tribes who looked up to their chiefs was probably not beyond the powers of the Sikhs, but it was not worth while. The authority of the Lahore Government was always admitted and often asserted, but subject to that admission the people were left to wrangle among themselves, and to settle their own disputes with sword and dagger. Tribal authority was relied on to keep society together and prevent anarchy, and revenue was the only care. But realization through Kárdárs by appraisement of the crop was a method not suited to the constitution of District society. From the very first the tribal chieftains took the place occupied in other districts by Kárdárs. The Makhad ilaka was always leased to the Khan, who collected by appraisement from his tribesmen. The town of Makhad itself always held a Sikh garrison, but in the villages around the Khan was left to himself. As early as 1789 Sardar Maha Singh, father of Maharaja Ranjit Singh, gave a lease

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of the whole of Tallagang, all Pindigheb, except Makhad and the Gheba iláka of Fatteh Jang to Malik Amanat Khan for Rs. 6,900. In the nineteenth century the Kalianwala family were, with the exception of two short breaks, continuously in possession of the tract as jagirdars. But whoever held it endeavoured to realize revenue through the Johdras of Pindigheb, and with that remained content. Whether it was Fatteh Singh or Dul Singh, Kalianwala (1798—1825), Dhanná Singh, Málwá (1825—1828, 1829—1832, and 1832-1844) or Budh Singh, Sindianwala (1828), a lease was always offered to the reigning chief of Pindigheb. Even when it was refused by the Johdras (Malik Nawab Khan refused the lease in 1798), and the Sikhs had to administer directly, the large owners in the Gheba, Jodhra and Makhad country had to be placated by grants of *chahárам* or remissions of one-fourth of the whole revenue collections. Sometimes the people paid and sometimes they did not. Every family had its feud and every village its part, and so wrangling and fighting the administration went on until the Sikh rule fell, and Lieutenant Nicholson appeared to represent the Sikh Darbar. The last 30 years of Sikh rule were a record of murder, treason and incompetence almost unparalleled. The Sikh Kárdárs, not strong enough to enforce their authority, did not scruple to set family against family and to instigate and reward murder and treachery. Hardly a gleam of chivalry shines through the blood-stained records of the family feuds, in which first one chief and then another lost their lives, seldom in open battle, generally by treacherous stab or midnight murder. The most important incident of this period is the gradual decline of the Johdras of Pindigheb and the rise of the Ghebas. At first responsible for the whole of Tallagang, a part of Chakwal, the greater portion of Pindigheb and much of Fatteh Jang, the Johdras by their own weakness and incompetence lost almost all. Their chiefs were men of loose and intemperate habits, too lazy to undertake the trouble and responsibility which commanding authority involved, and politically too short-sighted to see the goodly heritage they were throwing away. The decline of the family began in 1798, when Nawab Khan refused the contract for the revenue. From that date the Dandi Langrial villages were lost for ever, the Chahááram rights being surrendered a few years later. In 1803 the Sil ilaka was restored to the family. Ten years later Malik Nawab Khan, thoroughly dissatisfied and shorn of the larger portion of his ancestors' wealth and state, rebelled and joined Dost Mahomed Khan, Amir of Kabul, at the time that chief was waging war with the Sikhs on the bank of the Indus. Dost Mahomed was defeated and retraced his steps to Kabul, whither Nawab Khan followed him, leaving his family at Kohat. One or two years afterwards he returned, died at Peshawar and was buried at Kohat. His younger brother, Malik Gulam Mahomed, then entered into negotiations with Sardar Dul Singh, Kalianwala, Jagirdar, and obtained through him the Chahárам originally granted to Nawab Khan and permission to

reside at Pindigheb. He was also entrusted with the realization of the revenue of Ilaká Jandbogdial, situate on the bank of the Indus and inhabited by a body of freebooters. The rest of the tract was directly managed by the Sikhs. But in 1825 the ilakas of Sil, Khunda, Khaur, Kamliár and Gheb were divided between Malik Gulam Mahomed and Rae Mahomed Khan, Gheba of Kot. Both aided the Sikhs in their war with Sayad Ahmed, the fanatic leader, who having been compelled to retire from Peshawar, which he had for some time absolutely ruled, had made Balakot in Hazara his headquarters. Gulam Mahomed fought under Atar Singh and Budh Singh, Sindhanwalia, against Sayad Ahmed at the battle of Akora, near Attock, in 1827, and Rae Mahomed Khan under Prince Sher Singh and General Ventura at Balakot in 1830.

Neither chief could realize in full the demand for the tract leased to him. In 1829 the arrears amounted to Rs. 1,62,203, out of which only a small sum was collected with difficulty. For the balance Malik Gulam Mahomad and his son, Malik Allayar, and Rae Mahomed Khan and his son, Fatteh Khan, were summoned to Lahore. Malik Allayar and Rae Fatteh Khan were confined as hostages, while their fathers remained at large. In a quarrel which took place between the latter Rae Mahomed Khan cut down Malik Gulam Mahomed Khan in open Darbar at Amritsar and fled to his home. It was not thought politic to punish him at the time as his services were urgently needed on the side of Government in a wild country where the Sikh Kárdárs never gained full power, and we find him next year rewarded for his services against Sayad Ahmed. But a heavy fine was imposed and security taken for the arrears of revenue. The ancient enmity between the two families was now inflamed to fever heat. Sardar Atar Singh, Kalianwala, who was in charge of the tract, following the usual Sikh policy, seized the opportunity. In 1831 Rae Mahomed Khan was murdered in his own fort of Pahag with every circumstance of treachery and cruelty. Colonel Cracroft's description of the affair is as follows :—

"The tract was again given to Sirdar Atar Singh, Kalawalla, who this time was determined to get rid of one of the most troublesome of the subjects of the Maháraja. He invited Rae Muhammad Khan, loaded him with presents and honours, and immediately left for Peshawar. On his return six months after, he invited the Rae to the fort of Pahag, situated about a mile from his hereditary seat, Kot. With the recollection of his former reception fresh in his memory, Rae Muhammad Khan would not listen to the advice of his retainers and friends to take an escort, but went to the Sirdar with only a couple of followers. Scarcely had he set foot inside the fort, when he was attacked by Budha Khan, Mallal and others, and cut down. His son lived to avenge this treacherous murder by the wholesale slaughter of Budha Khan's family,

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leaving only the latter and a young nephew, who are still alive and are, as may be supposed, the bitter enemies of the Sirdar."

This murder at Pahag, if they had but known it, was the worst thing possible for the Jodhras. It opened the way for Rae Fatteh Khan. Throughout the stormy times that followed, Fatteh Khan, who had lost all his near relations by murder, but who had never failed to avenge their deaths, forced his way up to power, and extended his influence, until at annexation he stood at Kot almost without a rival in the countryside. He was a really remarkable man, strong and daring, generous and loyal to his friends, harsh and treacherous to his enemies, respected and feared by all, and he proved himself as able to consolidate his position under English rule, as he had been able to acquire in the days of anarchy. He died in 1894, at the age of more than 100 years, vigorous to the last and regarded by the whole District as the model of what a man should be. On the other hand Malik Allahyar Khan, who succeeded the murdered Gulam Mahomed, was a man of loose and intemperate habits with neither force of character nor political aptitude. In 1835 Sultan Singh, Kardar, was murdered while collecting revenue at Khunda. Cash payments were then fixed instead of crop appraisements and the Khunda, Khaur and Kamlial ilakás passed for ever from the Pindigheb family into the hands of the resident communities who in future themselves enjoyed the *chahárams*. The last and great chance was lost at annexation. The whole District was over-assessed, the difficulties of collection were enormous, and the village communities were eager to throw their heavy burden on the Malik's shoulders. Right to property in land was a thing unknown, the Malik was by the voice of the country the real proprietor. Nicholson was ready to do much for the Pindigheb family. But Malik Allahyar remained deaf to the entreaties of his friends. He declared that nothing should tempt him to plunge himself into such a sea of trouble as the direct management would entail, and he looked only to the *chaháram*. So from a love of ease he allowed a splendid property to slip through his fingers. The opportunity did not occur again.

The Sikh wars and the Mutiny.

The tribes of the District, with one notable exception, took no share in the First Sikh War. Fatteh Khan alone appreciated the weakness of the Lahore Government. In 1845 he rose in revolt, but in August 1846 surrendered to Sardar Chatar Singh, Attariwala, who thought of employing him to suppress future disturbances in the District. But two months later Misr Amir Chand, through folly or treachery, released him and he again took up arms against the Government, until through the influence of Colonel Lawrence, he was again induced to yield.

During the Second Sikh War, 1848-49, all the tribes of the District threw in their lot with the Darbar and the British. Abbott was shut up in Hazara. Herbert was besieged in Attock

fort. Nicholson like a stormy petrel was flying about Rawalpindi and Jhelum. In Bannu Taylor with a small force of raw levies was holding out, while further south Edwards was carrying on his famous operations in Multan. The District was therefore of much strategic importance. On the loyalty of the tribes of the District depended the security of communications between the scattered British officers and the possession of the ferries of the Indus. These important duties were performed with conspicuous success and loyalty. Fatteh Khan of Kot and Malik Allahyar of Pindigheb both raised bodies of horse and foot to keep open the communications and the former on several occasions engaged parties of the rebels with success. Makhad in particular was a place of importance. The Khan resisted all attempts of the Sikh and Afghan leaders to win him over. Not only did he maintain himself in Makhad and Shahardarra, but he also succeeded in an attack on the fort of Jabi, then garrisoned by the Sikh insurgents. In Attock Tahsil Karm Khan, Khattar, of Wah, raised a force of horse and foot which Nicholson employed in holding the Margala pass, and his son, Mahomed Hayat Khan, joined Nicholson at Nera with a few recruits, and remained with that officer till the close of the war. Firoz Din of Shamsabád served with Nicholson at Rámnagar, Margala, Pind Dadan Khan and elsewhere, and the Gondal family also did good service in the provisioning of Attock fort. Herbert's unsuccessful defence of Attock was the principal event connecting the District with the war. This loyal attitude was maintained in 1853 when Nadar Khan, the chief of the Mándla family of Gakkhars, attempted to raise an insurrection in favour of a person who pretended to be Prince Peshaura Singh, the reputed son of Maharaja Ranjit Singh, and again in 1857. It was Sher Khan, Alpiál, who brought Nádar Khan's insurrection to light. During the Mutiny the chief assistance rendered was in guarding the ferries of the Indus.

Subsequent history

Since annexation the history of the District is one of quiet development more social than political. Probably no tract in the Punjab has undergone greater development. As a separate administrative division, the District dates only from 1904. Previously the tract with the exception of Tallagang formed a part of Rawalpindi District from the greater portion of which it was very distinct in character. The tradition of lawlessness did not soon die out.

Writing in 1864, Colonel Cracroft says :—

" In former years, the high roads were universally unsafe. Passing through the limits of different tribes, travellers and caravans had to satisfy the rapacity of each by paying blackmail, or they had to submit to be plundered, outraged, and ill-treated, happy sometimes to escape with life. This was particularly the case in the western part of the District. It is not many years ago, that even under this order-loving rule, crimes were perpetrated of a nature to curdle the blood and to make one despair of achieving success. Let two or three examples suffice."

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The most famous case is that of the Jandál murders, of which the following description is taken from the old *Gazetteer* :—

The sub-division of Pindigheb is noted for the violence of the passions of the men, and the fierce blood feuds, which from time immemorial have rendered the region a scene of violence and bloodshed. In a village called Jandál, situated in the tract called Bálágheb, or Uppergheb, and inhabited by Ghebás calling themselves Rewáls of Mughal descent, a case occurred of a young woman, a widow, the daughter of the principal man of the place, called Mahmúd, wishing to marry a person, Shah Nawáz, who belonged to the faction opposed to her father. She had lost her husband two or three years before, and according to the custom of the country was considered the property of her deceased husband's brother, a boy only eight years of age. She formed a fatal attachment to Shah Nawáz, and had several clandestine meetings with him, but the thing was kept secret; not so secret unhappily, but that the father began to entertain suspicions. One afternoon not long before dusk, Mahmúd asked his daughter casually, whether she had had any intercourse with Shah Nawáz. She replied that she wished to marry him. Nothing more was said at the time. When night set in, Mahmúd collected his followers, struck off his daughter's head and threw her body into the street. Proceeding to the "Hujra," or assembly room, of Shah Nawáz, he surrounded it. Six persons were sleeping, and some cattle tethered in the house. One of the sleepers was a barber entirely unconnected with the parties. He had come to the village that evening on business. There were only two openings to the Hujra. One was a door of ordinary dimensions in front, and the other a small window in rear. Piling thorns and wood to both apertures, Mahmúd and his followers set fire to them. The whole place was soon in flames. The unhappy inmates could not escape. Two of them attempted to unroof the house, and succeeded in getting out, but on reaching the ground they were instantly cut down. The perpetrators of this monstrous crime escaped, and took refuge with the Afrídís of Boree and Jana Khor, sometimes shifting their quarters to Sitána, from which places they continued for many years, as out-laws, to commit depredations in our territories. Their property was confiscated by the State, and made over in compensation to Fatteh Khan, the present lambardár, one of the only survivors. It is scarcely credible, but a fact, that when Major Becher, Deputy Commissioner of Hazára, in order to put an end to the continual anxiety, trouble and loss of property occasioned by these outlaws, gave them service in regiments engaged during the mutinies, and subsequently condoned their offence, allowing them to return to their homes, Fatteh Khan wished to restore to some of them their proprietary rights. So light in the estimation of these wild people is human life held.

Apart from the murder of his own relatives Fatteh Khan doubtless considered the act praiseworthy, and the feeling is shared by the whole population.

The same authority gives the following description of the murders of merchants in the "Chitta Pahár" :—

On one occasion a trader had given offence to the Khattars by exaction of payment of a debt. Having some business at Attock, he started with his mule, and reached a solitary spot where he was seized upon, plundered and killed. His head, hands, and feet were cut off, and placed in the mule's bags. The mule turned homewards carrying the remains of the deceased to his relatives.

Five Khatrís were travelling from Attock to Domel, and had to pass through the Khoora, a dell in the Chitta Pahár. It used to be a wild, lonely place, a fit spot for any dark deed. It is now traversed by the Attock and Makhad road and patrolled by police. Here they were set upon, massacred, and mutilated, their legs and arms cut off, and their bodies thrown about without much attempt at concealment. This case occurred in 1855 A.D. No clue whatever was obtained to the perpetrators of the crime.

In the Chhachh, too, crimes of violence were frequent. Both in this region and in the Khátar the kidnapping of traders occasionally took place. The mosques were filled with Tálib-ul-ilm or so-called scholars, living on charity and ready for any kind of mischief. The expulsion of this class had a marked effect on the amount of crime.

From these early days the advance in order and lawfulness has been great. In 1859 the Gheba ilaká was detached from Pindigheb, and along with other ilakás formed into the present Fatteh Jang Tahsil. This had a most excellent effect, the rancorous enmity of Johdras and Ghebas no longer finding a battle-ground.

The District was constituted on 1st April 1904, Tallagang Tahsil being taken from Jhelum District, and the other tahsils from Rawalpindi District.

Section C.—Population.

Density.

Attock District with 110 persons to the square mile of total area stands 23rd among the 29 districts of the Punjab in the density of total population on total area. More than half of the area is unculturable, being comprised in the hills, ridges and ravines which scour the district. The pressure of the rural population on the cultivated and culturable areas is 276 and 220 to the square mile, respectively. The open unprofitable uplands which are characteristic of much of the district are capable of only a

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very rough and precarious cultivation, and it is important to note the incidence of population on the matured area. The density of the population per square mile under crops matured on the average of the last ten years is 442. Although with respect to the density of the rural population on the cultivated area, the district stands so low as 27th, yet if the area of matured crops alone be looked to, the district is behind none but the most congested tracts in the province.

Density by natural and administrative divisions.

The marginal table gives the density of rural population on the total and the cultivated area in the natural and administrative divisions. The density of the population thus varies very widely throughout the district. Tallagang is exceedingly sparsely populated. There are few plain tahsils with so sparse a population. More than one-half of the total area is not available for cultivation, but even on the cultivated area the popula tion is very far from dense. In Pindigheb population is even sparser than in Tallagang, but it presses much harder on the cultivated area. Almost two-thirds of the total tahsilarea is uncultivated, and more than a half is unculturable. Comparatively, the pressure of the population on cultivated area in Pindigheb, even if the valley of the Sil be excluded, is more severe than in Tallagang.

Division.	Rural Population 1901.	Density per square mile of total area.	Density per square mile of cultivated area.
Tahsil Attock ...	134,893	247	384
,, Fattehjang ...	114,849	133	297
,, Pindigheb ...	97,985	71	251
,, Tallagang ...	92,594	90	186
Chhachh ...	69,490	515	781
Sarwala ...	32,072	181	364
District ...	4,40,321	110	276

On the other hand, the fertile Chhachh maintains a population as dense as that of almost any congested district in the Punjab.

Towns.

The district contains four towns and 618 villages. The population of the former is shown in the margin. Attock and Campbellpur are both cantonments but Hazro and Pindigheb have rural characteristics. In particular Pindigheb is only a large village with but little trade, and owed its rise originally to the fact that it was the headquarters of the Jodhra Maliks, while now it is the headquarters of the tahsil. At each census the population has shown a slight decrease, and the town will probably degenerate into a purely agricultural village as trade concentrates more in the centres on the railway. Hazro, with more trade, and more urban characteristics, is steadily increasing; Attock decreasing

Towns.	Population in 1901.
Attock ...	2,822
Hazro ...	9,799
Campbellpur ...	3,036
Pindigheb ...	8,452

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as fast as Campbellpur increases. The headquarters of the sub-division at Attock have been removed, and the creation of a new district with headquarters at Campbellpur has given an impetus to the latter town.

Only 5 per cent of the total population was classed as urban at the last census (1901).

Villages and Hamlets.

The poverty of the soil and the ancient insecurity of the tract have been conflicting causes in the formation of villages. The surface of the district is extremely variable in quality. Except in Attock Tahsil, the best land is often small in extent and dotted about each estate in patches separated one from the other by great stretches of very poor soil. Add to this that in the absence of irrigation the two great methods of improvement are by manuring and by raising embankments, and it follows that the most suitable method of agriculture is for each peasant to settle down near the fertile patches where the manure of his homestead can be readily conveyed to the best land, or where by banking up some small ravine he can keep one piece of land moist. Wells, too, can be sunk only here and there and in small strips of land along the ravine channels. These conditions are inimical to the formation of large village *ábádís*, and in the greater part of the district tend to scatter the village community in small hamlets over the whole village estate. On the other hand, the insecurity of the tract drove the people to flock together for self-protection in one village *ábádí*. But where the fighting tribes did not themselves cultivate but settled small bodies of tenants on all the best parts of their properties, and lived upon the rentals received, there was nothing to hinder the *dhok* and hamlet system. The tenants were often a miscellaneous body with few common interests. Their landlords protected them from external violence and they were, therefore, as safe in small hamlets as in large villages. In such cases it became usual for the main body of the landlord class to live in one large central *ábádí* surrounded by a string of *dhoks* inhabited by tenants paying rent. Among the Awans of Tallagang not long ago the system of *dhoks* was uncommon. A homogeneous farming population with a large share of democratical equality, not overridden by *jágírdárs* or dominant landlords, but torn asunder by petty feuds and village wars, had no doubt given occasion for this state of affairs. But the general tendency now in all the district south of the Kala Chitta is for the population to issue forth from the village *ábádí* and spread themselves over the cultivated area. The insecurity of isolated houses is no longer a deterrent, and the number of small *dhoks* is now getting large. In Tallagang village areas are enormous and are studded with *dhoks* or outlying homesteads, sometimes fair-sized villages in themselves. The largest estates must always have had *dhoks* of the kind that are small villages in themselves, the more distant lands being out of reach from the main *ábádí*. The size of some of these villages

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is enormous. Lawa has an area of 135 square miles, Thoa Mahram Khan of 86 and Trap is almost as large. The number of *dhoks* is sometimes very large. Fifteen or 20 are not uncommon, and Thoa Mahram Khan has over a hundred. In Tallagang in process of time many *dhoks* have waxed mightily, and many of the old tenants have become owners. In such cases the want of community of feeling at once becomes apparent, each *dhok* wishing to set up for itself, and to become independent of its neighbours.

Except in Tallagang this system of outlying homesteads has not yet been carried very far. In Pindigheb and Fattehjang the dispersion of the village community is going on, but so far the people still live in fairly large *abádis*. Even in the largest villages the *dhoks* are all large collections of houses, and only gradually are small isolated homesteads springing up.

In Attock Tahsil the *dhok* system has less to recommend it. The village areas are as a rule smaller. The really profitable lands are less scattered, and it is possible for a village community to have round about it and easily accessible all the best lands. An extreme instance is the villages which form the bulk of the Sarwala circle and stretch out in long strips some five or six miles in extent over the great sandy ridge which divides the Chhachh from the Sarwala. All these villages have one large *ábádí* either just south of the Chhachh plain, where the land begins to rise on the north side of the ridge, and where the Grand Trunk Road is aligned, or on the line of Campbellpur on the southern side of the ridge, where water can again be tapped. In Attock, therefore, the people live in compact *ábádís* which vary in characteristics with the character and customs of the people. The Pathans of the Chhachh surround their houses and courtyards with walls often twelve feet in height. The narrow village lanes wind in and about between high blind walls. Elsewhere the villages are more open. Herds of sheep and goats have to be housed and cattle to be penned. There is less desire for an effective *parda*, and the expense and difficulty of building such lofty walls is often beyond the zamindar's powers. The people are poor and live in very unpretentious houses set down in no order and with no thought for anything but allowing the owner to gather all his goods about him. The houses are usually made of stones plastered with mud and are flat-roofed. The average population of a village is 756.

Tahsil.	Number of villages.	Population per village.
Attock ...	194	695
Fattehjang ...	203	565
Pindigheb ...	135	740
Tallagang ...	86	1,076
District ...	618	756

The table in the margin shows how the population is distributed in villages in the various tahsils. The Tallagang figures are misleading. They show not the number of people who live in each large *ábádí*, whether it be the

parent village or an outlying hamlet, but the number of inhabitants of each estate. The difference between Fattehjang (565 inhabitants in each village) and Pindigheb (740 inhabitants in each village) corresponds to a real difference in development. The culturable but still uncultivated area is much smaller in the former tahsil than in the latter. The dispersion of the population has gone much further. Physical and political conditions are different. The unculturable areas lie in blocks, not as in Pindigheb scattered through every village. The village areas are very much smaller, and the population in each village is therefore less. The Attock villages are slightly smaller than the district average. Political conditions forced the agriculturists to cluster together in small communities on the patches of good soil which could not maintain a very large body of cultivators. In Pindigheb the village communities settled on wide stretches of poor soil, and in the prevailing anarchy there was security only in large numbers. In Attock the soil is richer, though only in the Chhachh very fertile. The ownership was by peasants and not by tribal chiefs and families. Large village communities were never a necessity. So the population of each village is on the average smaller than in Pindigheb and Tallagang.

The great majority of all villages have a population of less than 500 inhabitants. In Fattehjang, where there is no village of over 3,000 inhabitants, over 60 per cent of the villages have less than 500 inhabitants. Only Hazro and Hasan Abdal in Attock Tahsil, Pindigheb and Thatha in Pindigheb Tahsil and Talagang have a population of over 5,000.

Growth of Population.

The marginal figures show the population of the district as it stood at the last three enumerations. In the decade 1881-1891, when the district suffered greatly both from drought and locusts, the increase was a little less than one per cent. At the enumeration of 1891 many men had left the district in search of work, as locusts had completely destroyed the crops. The male population accordingly showed a decrease of $2\frac{1}{3}$ per cent, but the female population rose almost 5 per cent. But the decrease was only temporary. The men returned to their homes, but a great emigration again took place before the census of 1901. The district had continued to advance and the female population showed an increase of almost 4 per cent on that of 1891. But the bad years and the severe scarcity of 1899-1900 had again driven away the ablebodied men. The male population had increased almost $3\frac{1}{2}$ per cent as compared with the figures of 1881, but there was only an insignificant advance on the figures of 1881. The favourable harvests since the census have probably brought back most of those who left their homes during the scarcity in search of labour or pasture, and the population is steadily advancing at a satisfactory rate.

1881 ...	... 444,307
1891 ..	... 448,420
1901 ...	... 464,430

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The table below shows the fluctuations of population by tahsils and for the three natural divisions of Attock Tahsil.

Divisions.	Total Population.				Percentage of Increase (+) or Decrease (-)		
	1868.	1881.	1891.	1901.	1881 on 1868.	1891 on 1881.	1901 on 1891.
Tahsil Attock	109,797	138,752	141,063	150,550	26	1·75	6·7
" Pindigheb ...	86 736	103,581	99,350	106,437	+19	-4	+7
" Fattehjang ...	94,775	107,100	113,041	114,849	+13	+6	+1
" Tallagang	79,056	94,874	94.966	92,594	+20	0	-2·5
Chhachh	..	59,486	66,740	69,490	...	+12·2	+4
Sarwala	...	33,016	27,104	32,072	...	- 18	+18
Attock Nala	...	46,230	47,219	48,988	...	+2	+3·8
Total District	370,364	444,307	448,420	464,430	20	1	3·5

In 1891 Pindigheb and Tallagang had been ravaged by locusts, but in the latter Tahsil the visitation came after census night, and cannot have affected the census result. The census of 1901 was preceded by years of severe scarcity and many of the peasant population had wandered away in search of work. In Tallagang with its sparse population and, on the whole, easy conditions of life, one would look for rapid expansion, keeping pace more or less with the constant increase in cultivation, but the population appears to be stationary, or even slightly on the decline. Certainly there is no lack of prosperity. In the last decade female population decreased by 810, though only half as much as the male population. Most of the villages in the north and west of the Tahsil showed increases. Those in the south and east decreases. The bad harvests for three years previous to census had caused emigration to the Chenab Colony and to Púnch Territory in Kashmir. The population of Pindigheb Tahsil is steadily increasing at about the average district rate. The Chhachh is exceedingly prosperous and the population has increased without check. The Sarwala was seriously affected by the bad years before the census of 1891 and has not yet quite recovered. Attock Tahsil as a whole shows a steady rise in population. It is not liable to vicissitudes of fortune, and there is little to cause any decrease in population. The tremendous increase disclosed at the census of 1881 was due chiefly to the influx of able-bodied men from every quarter in search of employment. At the time the census was taken, large railway works employed great numbers of daily labourers, especially on the heavy cuttings beyond Háji Shah

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and near the Haro bridge. The percentage of male to female population rose. The labourers were a motley crew, Kashmiris, Hazárás, Pathans, Western Punjab Mahomedans, Jats from the Rechna Doáb and Hindustánis from Oudh and the North West Provinces. Most of these had left their women behind them. The proportion of males to females has now regained its normal level.

Migration.

Statistics of migration are given in Table 8 of Volume B. No statistics for immigration are available as the district was formed after the census of 1901. There are no large centres of population in the district, and no great industrial concerns to attract population. The three Southern Tahsils draw almost solely from the surrounding districts of Shahpur, Jhelum and Rawalpindi. A few immigrants cross the Indus from Kohat and Bannu. The whole of this immigration is simply the usual movements of a purely agricultural people, and the numbers of males and females are about equal. A good deal of this is permanent immigration, especially in the case of women who marry in the district. Of the males some come for casual agricultural employment. Almost all the immigrants from Peshawar, Hazara, Kashmir, Hindustan and other foreign countries find their way to Attock Tahsil. Little of this is permanent immigration and the percentage of women among the immigrants is small. The stream of Kashmiri immigration, swollen in 1881 by famine in Kashmir and the recent permission to emigrate and so escape the bad government in that State, has almost died away. Rawalpindi District has much more attraction for these immigrants and lies more in their way. Most of the immigrants from Peshawar are Pathans who come for a short time unattended by their women, and who return to their own country when they have made a little money. There is also a little permanent immigration into the Chhachh from the Mardan Tahsil of Peshawar across the river.

Most of the emigration is temporary. Military service takes away many Pathans from Pindigheb and Attock, a few Alpials and others, but the main cause of emigration is bad seasons. There is little permanent emigration. In ordinary years many of the smaller landholders and the tenants move off to Peshawar, Kohat, Bannu and Rawalpindi in search of temporary employment and any sign of scarcity at once swells the number. From the north-east corner of the Chhachh very large numbers of men go out as stokers on the P. and O. and British India boats, and come back shattered in health, but full of money. Others used to go as hawkers to Australia, and indeed there are very few parts of the Empire which some one in the Chhachh has not visited. Generally as far as permanent migration goes, the district is slightly the gainer. Probably temporary emigration is always larger than the corresponding immigration.

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Age Statistics.

The figures for age, sex and civil condition by religions are given in detail in Table 10 of Part B. The following statement shows the age distribution of 10,000 persons of both sexes :—

Age-period.	Males.	Females.	Persons.
0—5	734	585	1,319
5—10	803	698	1,501
10—15	661	508	1,169
15—20	418	390	808
20—25	393	444	837
25—30	420	424	844
30—35	458	438	896
35—40	305	259	564
40—45	283	285	568
45—50	180	165	345
50—55	213	195	408
55—60	90	74	164
60 and over	310	267	577

The number of children in the district is very remarkable. Forty per cent of the total population are children under the age of fifteen. The marriage age is not markedly low, and fecundity is the only explanation. On the other hand only 570 persons per 10,000 are 60 years of age or over, so life is not particularly long in the district.

Vital Statistics. Average birth-rates.

Table 11 of Volume B gives the annual birth and death rates by religion and sex. The quinquennial average birth-rate is 43·3 (23 males and 20·3 females) per mille and the average death-rate 32·2, the rate being the same for males and females. In the absence of a steady and considerable stream of emigration these figures would encourage the expectation of a very large increase in population.

The method of collecting statistics is the usual one. Chaukidars report births and deaths at the *thana*, and district lists are compiled and recorded in the office of the Sanitary Commissioner, Lahore. Either the collection or the compilation of these figures is liable to a good deal of suspicion.

Diseases.

The district is fairly healthy, but not remarkably so, the death-rate not differing much from the Provincial average.

In spite of the aridity of much of the district the commonest disease is intermittent fever from which the people suffer all the year round, but more especially and severely in October, November, December and January. Roughly it may be said that 40 per cent of the deaths are due to fever. As a rule the amount of fever is less in dry years than in those of heavy rainfall, but the difference is not so great as would be looked for. A good *rabi* is usually accompanied by the prevalence of fever. The worst year in recent times was 1892, when heavy rains combined with a severe epimic of cholera raised the death-rate to 84 per mille, and close on

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40,000 people died. The autumn of 1906 also saw a very severe fever epidemic and the record figures of 1892 were almost reached.

In November and December the fever is often complicated with pneumonia and bronchitis, and dysentery and diarrhœa are common symptoms of the disease, while towards the end of the season enlargement of the spleen is often not uncommon. Guinea-worm is prevalent whenever the people are dependent on stagnant tanks for their water-supply. Eye troubles and skin-diseases are common in all parts. Stone in the bladder is also not infrequent. Cholera visited the district in 1892, 1896, 1900 and 1904, but only in the first year was severely epidemic. Up to 1906 the district was practically free from plague, but in that year the disease spread to all tahsils of the district. It had previously been quite unknown in Pindigheb Tahsil, but by the spring of 1907 Pindigheb itself and many parts of the Sil-Soan *ilaka* were very badly affected. Little could be done anywhere, as the people were disturbed by the alarming rumours then common in the whole Punjab. By the middle of July the virulence of the epidemic had greatly decreased.

Small-pox to some extent is always present in the district and was particularly bad in 1903 causing nearly 2,000 deaths. In the previous year the disease had visited the adjoining district of Jhelum and caused over 600 deaths. There has been no epidemic since.

Vaccination is now an established institution in the district. Revaccination is as yet far from satisfactory. There has recently been some improvement. Although the proportion of successfully vaccinated persons amounts to about 23 per mille, people still do not come forward readily, and the district is by no means immune from the recurrence of occasional epidemics of small-pox. Leprosy is practically unknown.

Infant Mortality and Average Death Rate.

The rate of infant mortality is high among girls. Female infanticide is unknown in the district, but more attention is usually paid to the more highly prized boy infants. The following table shows the comparison :—

Average of death-rate by age in the 3-year period 1904-06.

Ages	Males.	Females.
0—1	8·9	8·8
1—5	6·1	6·4
5—10	2·1	2·4
All ages	31·8	32·7

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The death-rates for the past three years are given in the margin. The high mortality in 1906 was due to malarial fever. It will be seen that the death-rate is much higher among Mahomedans than among Hindus, who are largely an urban population, and that the female death-rate normally ascends the male at all ages.

Year.	Hindus.	Mahomedans.	All religions.		
			Males.	Females.	Both sexes.
1904 ...	21·9	31·6	30·1	31·3	30·7
1905	27·1	30·8	30 6	30·4	30·5
1906	29·0	36·1	34 6	36·5	35·5
Average ...	26 0	32·8	31·8	32·7	32·2

Birth Customs.

On the birth of a son there is great and general rejoicing, and numbers of congratulations are offered. If the event has occurred in a Musalman family, the Mullah is called and utters the call for prayer (*bang* or *azan*) in the child's ear, receiving a small present, eight annas or a rupee and some cloth. If the child is a girl only some grain is given. A small portion of *gur* and *ajwáin* (opium involucrotum) are mixed together, and a few grains are placed in the child's mouth. This is done daily for three days. On the fourth day the female relatives are all collected, and the child's paternal aunt places the child on its mother's breast. A present is then made to the aunt. From this time the child is suckled by its mother. After a week the child's head is shaved by the *nái* or barber, the child is named by the head of the household, food and sweets are distributed, and the barber and other menials are given small presents. On the same day the mother and the child are bathed. The usages are the same on the birth of both boys and girls, but there is much greater joy on the birth of the former. There are no congratulations, no singing and no distribution of charity for a girl.

Boys are circumcised (*sunnat*) by the *nái*, up to the age of eight years, but usually after four. *Gur* and sweets are distributed, and the *nái* is paid from one rupee to ten for performing the operation.

Among those Hindus who call themselves Sikhs and wear the hair long (Kesadhári) the naming ceremony is as follows. A month after birth the child is taken to the *dharmsal*, the *granth sáhib*, or sacred book, is opened at random by the *Bhái* in charge, or some respectable person, and the first letter of the first verse on the page is the first letter of the child's name. The custom with other Hindus who cut the hair (mona) is similar, or the child is named by the head of the family. After 4, 6 or 9 months, or even any time up to 5 years, according to the custom of the family, the head is shaved, and some on this occasion put on the sacred thread (janeó). This ceremony is a time of rejoicing and the relations and friends are fed by the parents.

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The number of males in every 10,000 of both sexes is shown in the margin. These figures show that the number of females is steadily increasing in proportion to the number of males. The sudden fall in the proportion of males in the decade 1881—1891 was due to the excess of male emigration as already noted. In 1881, too, the Attock Tahsil contained a large body of foreign males attracted by the demand for labour.

Census.	In villages	In towns.	Total.
1881	5,395	5·558	5,403
1891	5,219	5,418	5,229
1901	5,206	5,457	5,219
1901 { indus			5,119
1901 { Sikhs			5,650
1901 { Mahomedans ...			5,268

The marginal figures show the number of males in every 10,000 of both sexes in each tahsil, according to the figures of the census of 1901. In both Attock and Fattehjang the males exceed the females by about $2\frac{3}{4}$ per cent, but in the two southern and more insecure tahsils the numbers are either equal or women outnumber men. But these figures probably do not represent the normal state of things. The distress and scarcity, which preceded the census of 1901 and were due to the failure of the rains in 1899 and 1900, were particularly severe in Pindigheb and Tallagang. In both Attock and Fattehjang there was some crop. Elsewhere there was none. In the southern tahsils too population is less tied to the soil. Tenants-at-will are a large body, and are always ready at the first sign of scarcity to flock off elsewhere for work. These causes operated in 1901. It is improbable that the proportion of males to females differs much from tahsil to tahsil.

Attock	5,292
Fattehjang	5,278
Pindigheb	4,684
Tallagang	5,088

The marginal table shows the number of females to every 1,000 males under five years of age as returned in the census of 1901. It will be seen from these figures that the proportion of girl children is satisfactory only amongst Hindus. But the figures are not above suspicion if compared with the death-rate of infants and the proportions between the adults of each sex.

Year of life.	All religions	Hindus.	Sikhs.	Mahomedans.
Under 1 year	Details	not	available	
1 and under 2				
2 " " 3				
3 " " 4				
4 " " 5				
Total under 5	797	970	804	782

The proportions of the sexes.

The number of females to every thousand males for each religious division of the people is shown below.

All religions	916	Females per 1,000 males.
Hindus	757	
Sikhs	770	
Mahomedans	917	

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These figures stultify the figures for infant mortality and the proportion of female children, and break the general rule that the ratio of females to males gets gradually lower as the age advances. As in the adjoining districts, the proportion of females to males is very low among the Sikhs.

Marriage Restrictions.

Although many of the Mahomedan tribes of the district are of Hindu origin, Mahomedan law has had such a strong effect as regards intermarriage that it has entirely abrogated the rule forbidding the marriage of relations. A Mahomedan looking for a wife always endeavours, if possible, to find one within the circle of his near relations. The bride is very commonly a first cousin. If so near a relative is not available, search is made within the tribe. Failing their own tribe, all the Mahomedans of the district will take wives from tribes of equal or lower degree but will give their daughters only to tribes of equal or higher status. All tribes will give their daughters to Sayyads (to whom they look up from religious motives), but they do so with increasing unwillingness. Marriages by men of agricultural tribes with low caste women occur sometimes, though they are looked on with disfavour. But the only general and absolute rule is that in every marriage the husband's family must be at least equal in social estimation to that of the wife, although not at all necessarily equal in wealth. All tribes, except the Pathans of Makhad *ilaka* and Attock, repudiate any custom of bride-price, although as will be seen marriage everywhere involves both families in much expense.

Betrothal.

Marriage is nearly always preceded by formal betrothal (*nata* or *kurmaí*). Except in Attock the customs connected with betrothal are as follows:—

When the parents of the children arrange a marriage, they appoint a date upon which the boy's father provides some 10 or 12 sérs of *gur*, Rs. 4 or 5 in cash, clothes for the girl and jewels according to their station, and a clove; these things are placed on the head of the *nái* or barber, and sent to the girl's house.

The girl's father or guardian takes the *gur* inside, and the *nái* takes care of the rest. That night the girl's father gives a feast to the boy's father and others, and next morning the girl's relations assemble and feast the guests, and place the *gur* sent by the boy's father before all the relatives of the girl; the other things,—the jewels, clothes, clove, etc.,—taken charge of by the *nái* are placed in a *thál* or open vessel, and placed before the girl's relatives.

In the Pindigheb tahsil among certain classes from Rs. 60 to Rs. 100 in cash is also placed in the *thál*. The Mulláh is present at this time. In accordance with the *Shara Muhammadi* the promise of marriage or *Shara Jawáb* is repeated three times by the girl and boy themselves if they are at full age, by their guardians for them if they are not.

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One rupee, called *nisháni* or the token, is always placed in the hand of the girl.

The *gur* is then divided amongst all those present, and the other articles are taken by the girl's relatives. One rupee is given to the Mullán and annas six to the *nái* or barber, and the boy's father and relatives take their leave, receiving from the girl's relatives one rupee in cash, a *pagri*, and some two sérs of *gur*. The clove brought by them, coloured with *kesar* or saffron, is at the same time returned by the girl's father to the boy's father. Occasionally, too, *pagrís* are given to some of those accompanying the boy's father. The girl's father then feeds his own relatives and dismisses them. The girl's female relatives sing songs of rejoicing at this time.

In Attock the custom is somewhat different. The boy's father goes to the girl's village in the afternoon and sits at a *hujra*, with a musician with him, who, however, is kept out of sight: then the girl's father prepares food and feeds the boy's father and those with him; this meal is known as *khora*. After this they sit together on a mat or carpet, and the *nái*, on behalf of the girl's family, places sugar in a *thál* before them. The boy's relatives then place jewels and money in this vessel. The *nái* of the girl's family has been previously instructed as to how much is to be put into the vessel, and until this amount has been put in, the *nái* continues to ask for more. When the amount is complete, the *nái* takes up the vessel and places it before the girl's relatives, who sit apart; the girl's father then takes out as much as pleases him, and returns the *thál* to the boy's father and relatives.

Then all the girl's relatives come and join the boy's relatives, and all sit together. The *nái* then brings a cup of *sharbat* and hands it to the boy's father or the head of his family with a civil speech; the musicians who accompanied the boy's father and who have been kept in the back-ground till now, strike up, all the women of the girl's family throw colour over the boy's relatives, and *sharbat* is handed to all. The Mullán is then called, the betrothal is formally entered into, and each party then goes off to its own house. *Gur* is distributed to the girl's relatives, and money to the *kamíns*.

On the third day after this, the boy's sisters, with a male and female relative, take vegetables, *ság*, rice and milk, and bring it to the girl's house. This the girl's relatives take, keep their guests one night and next morning dismiss them with a present of *bhochhan*, or shawl, or some cash; this is called *milni* or *meli*. After this, if the girl's household agree, the boy's female relatives pay a visit to the girl's taking the boy with them, and clothes, consisting of a *bhochhan* or shawl, are given to each of the female relatives accompanying the boy. They remain one night and go back, the boy remaining for some days. He is then

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dismissed with some clothes and a ring, and is accompanied by the girl's female relatives, who also each receive a *bhochhan* from the boy's father or guardian. This is known as "*pair-gala.*" After this, up to the time of the wedding, at each I'd presents of jewels, clothes, *gur*, rice, and so on, are made to the girl's family by the boy's family.

Betrothal in this district usually takes place, for the boy between the ages of 10 and 15, and for the girl before her twelfth year.

After an interval, the boy's friends proceed to discuss a date for the marriage with the girl's friends, and similar ceremonies and courtesies are gone through again. Colored threads are also presented. When the date has been fixed, a knot is tied on this thread for each day remaining, sometimes by the Mullán, sometimes by the Brahman, although the parties are Musalmàns ; this is known as *gandh.* Among the Patháns of Pindigheb and Attock, an estimate is made of the cost of the wedding, and this is paid by the boy's family to the girl's, in the shape of rice, *ghi*, goats, etc.

Marriage.

After fixing the date, the parents of both parties despatch small presents of *gur*, etc., to their more distant relatives and friends by the hands of the *nái*, who receives small presents of cash, two annas or four annas, or of grain. Fifteen days before the wedding, the women of the family come together and sing, which they do nightly thereafter until the wedding day. Seven days, or in some cases four days, before the wedding, except among the Patháns, *mayán*, a sort of biscuit, made of *ata* and *gur* cooked in oil, is distributed; twenty-five of these are placed before the bride and the rest are kept in reserve. When the bridegroom comes, two of these are given to each of the special intimates, and the rest are then divided amongst the guests. This custom is not universal. At the same time that these cakes are prepared, the *gáná* is tied round the bridegroom's right wrist. This is a black string of wool with an iron ring with some *sarson*, etc., tied on to it. This is known as *binda.* The custom of *binda* follows that of *mayán.*

The day before the wedding, or, if the bridegroom lives near the bride, on the morning of the wedding, the women of the bridegroom's family go with him about 4 P.M. to fill their *gharah* with water, taking musicians with them singing as they go; they fill one *gharah* and a small vessel with water and return to the house, and placing the bridegroom on the *chauki*, or low stool, they mix oil, flour, turmeric (*haldi*), etc., with curds, and therewith they wash the boy's head. Each woman dips her finger five times in the mixture and places it on the lad's head; then the *nái* shampoos and bathes him and the women throw small sums into the vessel for the *nái* and musicians, who divide it. After bathing him, the *nái* places water in the bridegroom's hand, who scatters

it to the four cardinal points, said to be indicative of a desire to include all in happiness similar to his own; then some embers are placed in a small earthenware cup, and some *harmal* seeds are thrown into them, which emit an odour: this is placed before the boy to avert the evil eye; the boy then kicks this over and gets up off his chair, and, putting on a black blanket, goes and sits with his friends and eats confectionery with them. Then the women of the family colour the bride and bridegroom's feet and hands with cochineal (*mehndi*), and their own hands also. The order of these ceremonies is sometimes altered. The bridegroom's friends assemble a day or two before the wedding and are fed by his family; then, when the bridegroom is ready to start for the bride's house, a wreath is tied round his forehead, of tinsel and flowers, and he is dressed in his best, and the *nái* gets his old clothes. The bridegroom is then addressed as Maháràja, and is made much of, and clothes are distributed also to near relatives, who then wear them, and these in their turn make presents to the bridegroom and his family in cash of sums corresponding to their station in life and small money presents are made to the *kamìns*.

The bridegroom then mounts his horse, salutes his near female relatives, each of whom gives him some coin. His sister offers grain to his horse, and holds his halter. He makes her a present, and the marriage procession then starts for the bride's house. Any shrine passed in the way is saluted and an offering made.

The girl is treated much in the same way up to the day of the wedding, and is then placed in retirement (*parda*), and other girls of her own age assemble round her. When the bridegroom's procession arrives, *néza bázi*, etc., goes on in front of the house. The women of the bride's house turn out and throw Persian lilac seeds at the bridegroom's party and abuse them; the bridegroom's party then presents *gur* to them, and the whole party adjourn to some large building arranged for the purpose, and the *nái* of the bride's family gives a cup of milk to the bridegroom who gives him two annas. Then the potter brings some *sharbat* and gives it to the bridegroom and guests, and he gets two annas. One rupee is sent to the girl's house; and the bride's family feast the guests who accompany the bridegroom, then the guests of their own connexion, and then *fakìrs*, beggars, etc.

Then at night the women take the bridegroom to a place by himself, where lights are set out, and sing obscene songs. Later the women take the boy out with them and perambulate the village singing similar songs. In the morning the boy is brought to the house of the girl's father, and the carpenter knocks in five pegs into the door, which the bridegroom takes out, giving the *tarkhán* a small money present of from one to six annas. Then the bride and bridegroom are bathed and dressed.

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After that, the friends of both parties assemble in a suitable place, and the marriage contract, or *nikáh*, is performed by the Mullán. The girl's friends answer for her, and the bridegroom answers for himself, and the ceremony is witnessed by four witnesses and the dower fixed. The Mullán gets from one rupee four annas to five rupees for performing the ceremony. Then the bridegroom is taken into the bride's house, where he seats the bride on a bed, and presents are made to the bride at this time, and presents are given by the bridegroom to the *kamíns* of the bride's house, and the bride is then placed in a litter and sent off with her husband.

In Chhachh the expenses of the wedding are all borne by the bridegroom's family, and not by that of the bride.

When the bride reaches her husband's door, the litter is placed on the ground in front of it, and the females of the family abuse her, and the bridegroom's mother, after moving the water, she has brought, round the bride's head three times, tries to drink it, which the bridegroom does not permit her to do; the litter is then taken into the house, and the *nái's* wife remains with the girl.

In the morning the *kahárs* and *kamíns*, who come for the litter, get presents and are dismissed. In the afternoon the threads on the boy's and girl's wrists are removed, each by the other.

This is a description of the marriage of an ordinary land-holding Musalman zamíndár in this district. There are slight differences observable in different parts of the district, most of which have, however, been noted.

In Tallagang about a week before the ceremony the bridegroom is anointed with oil, and the *gána* is then fastened on his right arm. From that day he keeps constantly with him two or three friends, called *sabála* who get their food in his house. A few days before the *barát* starts for the bride's house the more intimate friends of the bridegroom arrive, the other invited guests dropping in later when all are [assembled, and the boy's father gives a great feast, generally including rice and meat, and costing from Rs. 50 to Rs. 500. When the *barát* reaches the bride's village, the bride's father gives a feast, which costs from Rs. 90 to Rs. 800. This is followed by *berí ghorí*, which practically consists of making images in flour of the boy's relatives and then extorting a fee by threatening to abuse them. This ceremony is performed by the barber's wife. Then succeeds a promenade of the bridegroom round the village attended by pipes and drums, and women and *mirasis* singing in antiphonal measures, which goes on till the *sargi* or four o'clock in the morning. While the *nikáh* is being read, the girl is kept apart in *parda*, two witnesses being sent to her to enquire to whom she will give authority to consent to her

marriage on her behalf. This is a mere pretence, as the girl holds her tongue, and her relations answer for her that she gives the *wák* or power of attorney to so-and-so. The man in question is called, accepts the power of attorney, and proceeds to settle the dower with the bridegroom. This is first put at an extravagant rate and eventually beaten down to a reasonable one. The rate varies from Rs. 20 to Rs. 100 or even more, generally with the addition of a gold mohur, but is usually Rs. 32, supposed to represent the 500 copper coins and gold mohur allowed by Mahomedan law. After the marriage ceremony the bride's father exhibits to those present the articles given by him to his daughter as dowry (*jahez* or *dáj*), the *mirasi* meanwhile announcing them (hukái). The bride's clothes are then formally changed, this being the public sign that the marriage ceremony has been completed, and the *barát* party, now taking the bride with them, return to the bridegroom's house. On the seventh day, when the *gana* thread is untied, the bride is taken home by the parents, the bridegroom following a few days later, and remaining in his father-in-law's house for a week. He then goes home and after some days more the bride is brought away by some of his relations, and takes up her abode finally with her husband. If the parties are not of age, the *barát* is sometimes deferred until they grow up, but this is very rarely done.

The non-religious portions of Hindu marriage ceremonies are in a general way very similar to those of the Musalmans. The essential and binding part of the marriage ceremony, which, in the case of Mahomedans, is the *nikáh*, is with Hindus the *kaniá-dan*, or transfer of the girl to the boy's family. The girl's father puts her hand into the boy's, their clothes are tied together, and they walk seven times round the sacred fire (*hom*), the Brahman reciting certain *slokàs* from the *shastras* meanwhile. The whole ceremony of circumambulating the sacred fire is called *lawàn phera*. The *baràt* stays longer than among Mahomedans. The usual time is four nights, the company being fed by the girl's family. An attempt recently made by the Deputy Commissioner to reduce the time to two nights came to nothing. The *jahez* or dowry also is usually more elaborate, consisting of clothes, cash or ornaments, metal vessels, according to means; a lacquered bedstead and a lacquered chair; and the well-to-do sometimes give cattle or horses as well.

Miscellaneous matters relating to marriage.

There is little restriction on the season for marri ge. For obvious reasons Mahomedans avoid the month of Ramzan, nor will they marry on the I'ds, during the first 13 days of Safar, or on the 3rd, 13th, 23rd, 8th, 18th or 28th days of other months. Hindus do not marry in the months of Chet, Kátak and ,Poh, nor during the *Sangat*, or inauspicious period of about a year, which recurs every twelve years or so.

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There is no fixed age for marriage. Among Mahomedans the contracting parties are usually adults, and the wife goes to live with her husband at once. With the Hindus the marriage is at about twelve for girls and eighteen for men. Marriage used generally to take place at the age of from 7 to 10 years, but now child-marriage is fashionable only with those who cling to old customs and the *shastras*. The girl remains with her parents till the *mukhlawa* ceremony.

Among Hindus the wife enters the caste and *got* of her husband on marriage. Apparently Mahomedan women always belong to the tribe in which they were born. Practically the whole adult population marries. For Hindus marriage is an obligatory ceremony. A few Mahomedan women are vowed to celibacy (*musallanashín*) and a few men are unmarried, but the number of both is small. Among Hindus and the principal Mahomedan families widow re-marriage is not practised, but in the great mass of the agricultural population no stigma attaches to marriage with a widow, and a woman, if not too old, will always remarry. Of women of all ages above 30 among Hindus 82 per cent are widows. Among Mahomedans the corresponding percentage is only 54.

Polygamy is a matter of expense. Hindus as a rule are monogamous. A Mahomedan has more than one wife when he can afford it. The ordinary zemindar with his small holding or poor land has to content himself with one wife; while his richer brother may have two. More than two wives are uncommon and in general polygamy is confined to the principal Mahomedan families. Divorce is unknown among the Hindus, but exists in the usual form among Mahomedans. It is resorted to with great reluctance, and the most binding oath is the *talákh* or oath of divorce. Polyandry is unknown in any form and does not appear ever to have been practised. *Pagwand* is the universal rule of inheritance, and agnatic descent is the basis of the customs of all tribes. None of the tribes of the district have ever practised female infanticide. Only the leading families have any difficulty in getting their daughters married, and the peasant proprietor finds a great deal of work for the young women of his family to do.

Language.

The almost universal language of the district is Punjabi. Pushtu is spoken in the Makhad *ilaka* of the Pindigheb Tahsil, lying alongside the Indus between Kálabágh and Khushálgarh, and in the northern portion of the Attock Tahsil, the Chhachh *ilaka*. The inhabitants of the Makhad *ilaka* are Sagri Patháns, and speak the Pushtu of Kohat; those of the Chhachh *ilaka* are a miscellaneous body allied to the Yusafzai Pathans of the Peshawar district. Many of the Makhad Pathans speak the Punjabi of the surrounding country and a very broken Urdu, but

Pushtu is the tongue they use among themselves. Urdu is confined to Attock and Campbellpur, and a few of the better educated, and to the temporary residents whose homes are down country. South of the Kala Chitta hardly a word of Urdu is spoken, even the prominent *maliks* constantly employing their native Punjabi. The Punjabi spoken is quite different from the Pothwari, dialect of the adjoining tahsils of Rawalpindi and Jhelum, and resembles more the language spoken in the western Salt Range, and in the Thal beyond. Dr. Grierson calls it Lahnda and writes "although influenced by the dominant Punjabi spoken in the Province it is much more nearly connected with Sindhi and Kashmiri than with that language. So much is this the case that difficult words in the Kashmir Chronicles have actually been explained by a reference to Mr. O'Brien's Multani Glossary."

The dialect spoken belongs to the group of dialects which has been called Western Punjabi, of which Rev. Mr. Bomford has published a grammar and Rev. Dr. Luke a dictionary. A "Grammar and Dictionary of Western Punjabi, as spoken in the Shahpur District" was published in 1898 by Mr. J. Wilson, I.C.S., formerly Settlement Officer and Deputy Commissioner of that district, and this deals fully with the language of an adjoining tract, whose dialects are not very different from those of the district.

There are, of course, differences in dialects within the district among the Punjabi-speaking people. The speech of Tallagang is different from that of the Gheb, which again differs from the dialect of the Attock Sarwala. The dialect spoken in the Soan valley is known by the distinctive name of Sawain, the speech of Khatris throughout the district is quite distinct from the zemindari tongue, and Gujárs, who keep to themselves and are disliked by their neighbours, speak a dialect of their own which seems to be more Hindi than Punjabi.

But in spite of these differences every resident of the district is intelligible to every other. The Pathans all know the ordinary Punjabi and the Punjabi dialects have the common characteristics of pronominal suffixes, a strong passive form in i, and a future in s, and all merge gradually the one into the other.

Distribution of Land owning tribes.

In the whole tract south of the Kala Chitta and to a less degree north of it, the great landowning tribes are arranged in solid blocks, the limits of which are indicated on the tribal map attached to Volume B.

There is very little mixing of tribes in any one tract. The Awáns occupy practically the whole of Tallagang Tahsil, where they comprise 83 per cent of the total population and 72 per cent of the number of owners and shareholders in land. The following

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table shows how land held in private right is divided among the various tribes in Tallagang:—

Detail of main tribes.	Number of owners and shareholders.	Percentage of area cultivated.	Percentage of revenue assessment of revised settlement paid.
Hindu and Sikh	950	3	3
Sayyad	560	3	3
Janjua	178	3	2·75
Awán	12,103	81·5	77
Gujar Bhatti and Jat	1,344	4	7
Others	1,442	5·5	5

In Tahsil Pindigheb the tribal distribution is simple. The whole of the south-east and centre is hold by the Jodhra tribe. Along the hills above the Indus river are the Sagri Patháns of Makhad. A solid Awan tract intervenes between the Johdras and the Pathans and runs from the south to the north of the tahsil. Last the Khattar tribe holds the north-east of the tahsil along the Attock border. These four tribes own practically the whole of Pindigheb Tahsil, and their present boundaries are the result of violent fighting during the break-up of the Moghal and Sikh rules.

The following statement shows the percentage of cultivated area owned, and of land revenue paid by each tribe:—

Tribe.	Number of owners.	Percentage of cultivated area owned.	Percentage of land revenue paid
Jodhra	2,453	31	34
Awán	4,204	25	24
Khattar	2,368	18	18
Pathán	1,741	8	5
Rajput Chohán	282	3	2
Sayyad	118	2	2
Other Musalmans	2,924	9	9
Hindus	1,315	4	6
Total ...	15,405	100	100

Ownership is less simple in Fattehjang than in Pindigheb, and indeed in the extreme east of the Gheb circle and throughout the Sil Soan circle the ownership is a good deal mixed. The prin-

cipal tribes together with the percentage of the cultivated area owned, and of the land revenue paid, are shown in the table below.

Tribe.	Number of owners.	Percentage of cultivated area.	Percentage of land revenue.
Gheba	1,587	34	19
Khattar	1,178	24	17
Miscellaneous Rajputs	2,340	12	14
Awán	486	10	15
Alpial	4,646	10	17
Gujar	827	4	6
Sayyad	847	2	3
Khattri	1,812	3	4
Other Musalmans	2,229	3	4
Other Hindus	429	1	1
Total ...	20,381	100	100

The Khattars hold the whole of the Nala circle on the north and the east of the Gheb circle in the centre of the tahsil, forming part of the old Khattar *ilaka* which extends from Fattehjang to Hassan Abdal in Attock and along the Kala Chitta from the Indus river to the Margalla pass in Rawalpindi. The Ghebas own the whole of the west and south of the Gheb circle up to the Pindigheb border which marks the separation of the Ghebas and the Jodhras. The Alpials are in the Sil Soan circle alone, and though mixed with Awáns and other tribes, are far the largest owners in the circle. The extreme east of the Gheb circle on the Rawalpindi boundary is held by miscellaneous Rajput tribes and belongs ethnologically to the Rawalpindi Tahsil. It will be noticed that the Ghebas and Khattars, who own large *barani* tracts, pay much less revenue in proportion to their holdings than any other tribes.

Ownership is more complicated still in Attock Tahsil. The Chhachh is almost wholly Pathán, though Awáns own a good deal of land and pay 9 per cent of the revenue. The Sarwala circle is divided between Awáns, who own a third of it, Khattars owning a fourth, and Gujars and Sheikhs. Patháns preponderate in the Nala circle, followed in order of importance by Gujars, Khattars and Awáns. Roughly Khattars lie all along the Kala Chitta. Patháns hold the Chhachh and the Nala estates along the Haro. Awáns inhabit the centre of the Sarwala, the west of the Nala circle, the neighbourhood of Shamsabad in the Chhachh, and are scattered through the rest of the tahsil. Gujars and Sheikhs are settled along the boundary of the Chhachh and

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Sarwala circles and the former are strong in the centre and east of the Nala circle. The relative importance of the tribes in Attock Tahsil is shown below:—

Detail of main tribes.	Percentage of cultivated area.	Percentage of land revenue.
Pathán	34·7	49
Awán	19	12
Khattar	18·4	11
Gujar	14·2	14
Malliar	2·3	2
Sayyad	1·9	2
Sheikh	4·7	4
Mughal	·7	1
Rajput	·6	...
Kamins	·2	...
Others	1·6	2
Hindus and Sikhs	1·7	3
Total ...	100	100

Relative numerical importance of principal tribes.

The following list gives the relative position of the numerically most important divisions of the population :—

	Tribe or Caste.	Percentage of total population of district.
Agricultural Tribes.	Awán	32·5
	Pathán	8
	Malliar	8
	Rajput (including Alpials, Jodhras, Bhattis, Chauhans etc.)	5·5
	Gujar	3
	Moghal	2·6
	Sayyad	2·6
	Jat	2·5
Shop-keepers.	Khatri	5
	Arora	3
Menials.	Julaha	4
	Mochi	3
	Lohar	2·3
	Tarkhan	1·8
	Musalli	1·8
	Kumhar	1·7
	Nai	1·7
	Teli	1·6
Others	... ...	9·4

But a merely numerical comparison is no test of the relative importance of the agricultural tribes. The Jodhras, for instance, who dominate the greater part of Pindigheb number only 1,690. Khattars who hold undisputed sway on both sides of the Kala Chitta are less than $1\frac{1}{2}$ per cent of the total population. But the list shows clearly how largely Awáns bulk in the population of the district.

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Tribes gazetted under the Land Alienation Act.

The tribes gazetted under the Land Alienation Act are Awán, Biloch, Gakkhar, Gujar, Jat, Jodhra, Khattar, Koreshi, Malliar, Moghal, Pathán, Rajput, Sayyad, Bhatti, Janjua, Jodh, Kahut, Mair and Manhás.

Principal tribes in order of standing.

Social standing in the district is a somewhat complicated matter. Claims on historical grounds are influenced by present prosperity or adversity, and religious motives give a separate standard. Among Mahomedans, Sayyads are looked up to by all from religious motives. It would hardly be correct to say that they stand highest in the general estimation, but in many ways this is so. Thus few tribes would object to giving their daughter in marriage to Sayyads of good standing. The Koreshis also are somewhat similarly situated, but rank much lower. Generally anyone of whatever caste, if he has a well-established reputation for sanctity, ranks socially with almost the best in the district.

Of the large landowning tribes the Jodhras occupy the highest social position. Janjuas are in numbers insignificant, but their social position is very high. Many of the Awáns have fallen on evil days. But for present adversity and the peculiarities of their dispositions they would socially be inferior to none in the district. The Khattars and Ghebás are socially a little inferior to the Awáns, with whom the former claim to be connected, though the claim is denied, and to whom the latter give their daughters in marriage without receiving brides in return. But high social position attaches only to the big Awán families. The rank and file occupy an intermediate position. The Awáns of Tallagang are accounted higher than their fellow tribesmen in the rest of the district. Just below Ghebás and Khattars come Alpials and miscellaneous Rajputs, though some of the latter rank high in general esteem. Jats, Gujars and Malliars occupy the lower strata in agricultural society and rank in the order in which they are given. After them come the *kamíns* (the menial and artisan classes). Sunarás are socially the highest, and Lohars are slightly superior to the Tarkhans, but the names are often used alternatively, the same man being both a carpenter and a blacksmith. Kumhars, Julahas, Nais, Telis, Machhis, Mallahs, Dhobis, Mirasis, Mochis, Musallis are given in the order of their social importance.

Patháns occupy a separate position, marrying only with Patháns and Sayyads. They are everywhere recognised as well-born. Hindus are principally Brahmans, Muhiáls, Khatris and Aroras, and rank in that order.

The Awans.

Notes on the various tribes follow. Numerically of all tribes in the district, the Awáns, who make up almost a third of the population, are far the most important. The Awán country centres round the western Salt Range, extends into the adjoining portions of Mianwali, Shahpur and Jhelum districts, and includes Kálabágh on the west bank of the Indus, the seat of the head of all the Awáns.

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In this district they appear in every Tahsil. They own practically the whole of Tallagang, the centre of Pindigheb Tahsil in a strip from the Soan to the Kala Chitta, about a quarter of the total tahsil area, ten per cent of Fattehjang including land in all circles, but especially in the Sil Soan circle, and almost a fifth of Attock Tahsil where they divide the Chhachh with Patháns, the Sarwala with Khattars, and the Nala circle with Patháns, Gujars and Khattars. Tallagang Tahsil and the central tract of Pindigheb are so essentially Awán country as to be commonly known as the Awánkári. Where they do not appear as owners Awáns are found as tenants, and in much of the district cultivating occupancy is almost solely Awán. They are the backbone of cultivation everywhere south of the Kala Chitta, and even in Attock Tahsil they yield only to Patháns in importance as agriculturists. In Fattehjang and Pindigheb they cultivate at least two-thirds of the total area, while in Tallagang the proportion cannot be less than 90 per cent. No statistics are available to show what proportion of the area of the district is cultivated by Awáns, but there is little doubt that every other man at the plough tail is an Awán. In the whole district they own 36·7 per cent of the cultivated area and pay 30 per cent of the revenue. In the adjoining district of Rawalpindi also they are very numerous both as owners and as tenants. The origin of the Awáns is one of the battle-grounds of Punjab ethnology. Their own story is that they are of Arab origin, being descended from one Kutb Shah of Ghazni, who ruled at Herat, but joined Mahmud Ghaznavi in his invasion of India, and received from him the name of Awán or "helper." Kutb Shah, according to the Awán account, was descended from Ali, the son-in-law of the Prophet, but by a wife other than Fatima, and the Awáns have been Musalmans from the beginning. The original settlement was in the neighbourhood of Peshawar, but Kutb Shah's sons spread over the country to the east and south. Gauhar Shah or Gorrara settled near Sakesar; Kalán Sháh, or Kalgán, at Dhanhot (Kálábágh): Chohan colonised the hills near the Indus; Khokhar, or Muhammad Shah, went on to the country about the Chenàb; and Tori and Jhajh remained in the trans-border country, where their descendants are said still to live in Tirah and elsewhere. All acknowledged the chief of Kálabagh as the head of the tribe.

General Cunningham's theory (Archæological Reports, II 17 ff) identifies them with the Juds, whom Bábar in his memoirs mentions as being descended from the same father as the Janjuas, with whom they divided the Salt Range. They took their name from the old name of Mount Sakesar (Jud), which is still the tribal centre of the Awáns, and had from old times been the rulers and inhabitants of the western Salt Range. Cunningham would make both Janjuas and Awáns "Anúwán" or descendants of Anu. He

thinks it probable that they held the plateaus which lie north of the Salt Range, at the time of the Indo-Scythian invasion which drove them southward to take refuge in the mountains. Bábar mentions that younger brothers and sons among the Juds were called "Malik," a title still used by the headmen of the Awans.

This theory does not accord with the present distribution of the tribe, and is contradicted by the fact that in Bábar's time the Janjuas ruled not only the Salt Range but the country to the north of it. Bábar describes the Janjuas as owning at least the neighbourhood of the Soan, and the western Salt Range was conquered by the Awáns under leaders whose names are still well remembered. It is also very improbable that the Janjuas and the Awáns were one race within historical times.

Mr. Brandreth gave a third account of the Awáns. He was of opinion that they were descended from "the Bactrian Greeks driven south from Balkh by Tartar hordes, and turning from Herat to India," and that entering the Punjab not more than 300 years ago as a conquering army under leaders of their own, they dispossessed the Janjua Rajputs of the Salt Range country. He gives no reasons, and this theory, which is merely a conjecture, is almost certainly wrong. The Awáns have been almost the sole occupants of the western Salt Range for the last 600 years. In addition it is very doubtful whether any Greeks settled in Bactria at all, and lastly 300 years takes us back only to the end of Akbar's reign, when, as the Ain-i-Akbari shows, the Awáns inhabited and gave their name to a tract, which may without hesitation be identified with the present Awankari.

Mr. Thomson, in his Jhelum Settlement Report, considered the whole question, and wrote as follows :—

"In such a conflict of authorities it is difficult to decide. The tribal tradition is probably a fable slightly connected with fact. Arabian ancestry is a favourite fiction, and Mahmúd of Ghazní is the common *deus ex machina* to save the confession of a primitive idolatry. On the other hand General Cunningham's theory seems incredible. It is supported by little or no evidence. It is almost unheard of for undoubted Lunar Rájpúts of high pedigree to deny their origin, and to be joined in the denial by all their neighbours. Similarly the fancies about Bactrian Greeks are a mere surmise, and a very recent arrival of the Awáns is contradicted by historical evidence. The most probable account seems to be that the Awáns are a Jat race who came through the passes west of Dera Ismáil Khán, and spread northward to the country round Sakesar. Here they were found by Mahmúd of Ghazní, and by him converted to Islám. This version is apparently in accordance with the less adulterated traditions of Dera Ismáil Khán. It also agrees with those traditions recorded by Mr. Griffin, which point to a former Hinduism. It is, moreover, in

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agreement with the common speech of the country which always classes the Awáns as *Zamindár* or low born men in contradistinction to the *Sáhú* or gentle tribes of Janjúas and Gakhars. Out of their own peculiar territory the Awáns are frequently set down as Jats of the Awán *gót* in the records of the first Regular Settlement. This is good evidence of the popular opinion. In Peshawar they are always reckoned as Hindkis."

These views were noticed with approval by Sir Denzil Ibbetson, Punjab Census Report, 1881, para 405, and in the Shahpur Gazetteer, Mr. Wilson wrote that the Awáns "so far as language, customs and physique go, are an indigenous Punjab tribe." There can be little doubt that the Awáns were originally Hindus. The Hindu character of some of the names of Kutb Shah's sons will be noticed. Some explain it by saying that Choháns and Khokhars were named after the tribes of their mothers: others that the Awáns were converted to Hinduism, but after some time were brought back to Islam, when 1 maund 25 seers of sacred thread was collected from their persons; but these explanations fail to satisfy. The Kálábagh family genealogical tree, which traces their descent from Kutb Shah, contains several Hindu names such as Rai Harkaran, immediately below the name of Kutb Shah, and in places Awáns still employ Hindu Brahmans as family priests.

The Awáns have always been less conquerors than settlers. Unlike the Gakkhars, Janjuas, Jodhras, Ghebas, Khattars and other tribes who retained in subjection and cultivating occupancy the population of the country they conquered, the Awáns either dispossessed or absorbed the original inhabitants. They not only ruled but occupied. It is interesting to observe the absence of Jats and Gujars in the purely Awán tracts.

	Number in District.	Number in Tallagang.
Gujar ...	12,229	37
Jat ...	11,727	222

When the Awans in their turn were overpowered in Rawalpindi District, and in Attock, Fattehjang and Pindigheb Tahsils, they settled down as tenants under their conquerors. It is easy to make conjectures, but their history and distribution alike encourage the belief that they are indigenous inhabitants of the western half of the tract now divided between Attock and Rawalpindi District. Their early home may have been in Kahuta, Rawalpindi and Fattehjang. Partly under pressure from the Gakkhars who descended from the hills on the north, partly compelled by ambition and natural expansion, they drove the Janjuas out of Tallagang and the Salt Range, and spread over into Mianwali and Shahpur. Wherever they went they settled and absorbed or expelled the resident population. Wherever a new wave of invasion poured over them, they were content to remain in a subordinate position in the tract they

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had once ruled. That they are of Rajput origin is improbable, but, on the other hand, they cannot have been pure Jats. Bábar says Jats and Gujars occupied hills and valleys throughout what is now Attock District, but Awán physique is something different from the physique of Jats and Gujars, and tribal character is not less widely distinguished. They may be a third tribe, neither Rajput nor Jat, indigenous to the Upper Sind Ságar Doab who both ruled and cultivated a country which had room for Jats and Gujars also in subjection to the Awáns. Mr. Thomson's identification of them with Jats and his description of them as low born men is almost certainly wrong. It is beyond question that they found the Janjuas in possession of the western Salt Range and ejected them, and throughout this and the surrounding districts they rank high in the social scale.

The Awáns are divided into numerous clans (called *múhí*) which take their name from the common ancestor. Thus the Mumnáls are the descendants of Moman, the Saghráls descend from Saghar, the Shiáls from Shehan, and so on. As regards Gangs and Munds, who are generally reckoned as Awáns, there is some reason to doubt whether they really belong to the tribe; the leaders amongst those who are admittedly Awáns do not usually admit it, and it is quite possible that, surrounded as they are by Awáns on all sides, they would gradually come to be regarded as members of the tribe even if they were not so in reality; but it is, of course, also possible that they may be Awáns, though not descended from the latest common ancestor of the other clans. The principal branches of the tribe found in the district are Kutbshahi, Sadkál, Bugdiál, Chajji, Saidán, Parbál, Balliál. *Trer* Awáns inhabit the south-west corner of the Attock Nala but do not share in the good character borne by the rest of the tribe. Khattars claim a common origin with the Awáns, but the Awáns repudiate the connexion. Awáns are a very self-contained tribe, and will not as a rule give their daughters in marriage to other tribes. The small proprietor always marries his daughter to an Awán. The big families take Gheba and other women freely, but are reluctant to give their daughters in marriage to any but Awáns, though there seem to be some instances of marriages with leading men of the Chakwál tribes. It is said that the Kálábágh Malik refused to betroth his daughter to Sardar Muhammad Ali, Gheba, of Kot, and when his granddaughter was betrothed to Sardar Muhammad Nawaz Khan of Kot in 1907, the Awáns throughout the district regarded it as an act of condescension. In some families at least prominent Awáns take to wife women of low tribes (usually having an Awán wife also), and this practice does not seem to meet with as much disapproval as in most other tribes of equal social standing; but ordinarily Awán wives only are taken. Certain families marry with certain other families only, and in all cases marriage is generally, but not necessarily, within the *Múhí*.

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Awáns are less prosperous in Fattehjang and especially in Pindigheb than in the other two Tahsils. They are in their way good, hard working cultivators, their genius lying in the direction of elaborate embankments, to make the most of the scanty rainfall, rather than in attention to small details. Their fields have often a very slovenly appearance, but this is more apparent than real. In Fattehjang they are nearly always small owners selfcultivating, hardworking and quarrelsome. In Pindigheb holdings are rather small among them, and there are no large owners. Drought and hard times have told upon them so that they are much in debt and have alienated a great deal of their land. Generally tall, broad-shouldered, well grown men with plenty of spirit, they should make fine soldiers, but more than any other tribe in the district they dislike leaving their homes, and there are comparatively few of them in the army. They are a curious instance of a peasant tribe with aristocratic traditions and a history of conquest and dominion. Their manners are frank and pleasing, but everywhere they are headstrong and irascible to an unusual degree. Their characteristic failings are vindictiveness and a proneness to keep alive old feuds. In Tallagang these characteristics have led to an undefined but well-understood factious organisation centering round the Malliks of Lawa. The greater part fo the Tahsil is split into two parties, to one or other of which almost every headman belongs. The bonds of connection are not drawn very close, but every member of a party can always look for countenance and general support from the other members. In many villages it means only this that a member of the faction who has to put up in the village will stop with the lambardar of the same faction, but elsewhere the rivalry is very bitter. Intermarriage goes on between the two factions, but it is curious to note among all tribes how little effect intermarriage has on the long established feuds. In the old times a son naturally belonged to the party of his father, but latterly some of the younger men have chosen for themselves, and gone over to the enemy, generally on account of marriage connections with the other factions, but this is not held to excuse the deserter, and great animosity has resulted. In Jhelum district these differences are settled in the light of day with 6-feet staves, but the Tallagang men prefer secret murders, or the more peaceful methods of false charges and civil suits. False witness whenever needed is an implied condition of tenancies in some parts. Open rioting is rare. The Awáns are not addicted to thieving, and with all their faults are a very fine peasantry.

The following account of the factions of Tallagang, though not originally intended for publication, was inserted in the Jhelum Gazetteer of 1904 and is reproduced here.

"The factions of this Tahsil have their headquarters at Láwa, and are known by the names of Ujjal Khán and Khán Beg. The

latter was the father of Muhammad Khán, Ilákádár, who is now a member of Ujjal Khán's faction, the rest of the family is still on the other side: each party has its adherents in every important village as follows:—

Village.	Ujjal Khán's Party.	Khán Beg's Party.
Láwa	Ujjal Khán ... ... Muhammad Khán ... Sher Muhammad ...	Sultán Mubáriz. Aziz Khán. Ahmad Khán. Yáran Khan. Ahmad Yár. Mulkhá, Pattidár.
Danda Sháh Biláwal ...	Budha Khán Wiláyat Sháh.	
Dhurnál	Sháh Nawáz (doubtful) ... Muhammad Khán "Bhauká."	The other lambardárs.
Thoa Mahrám Khán ...	Lál Khán, dismissed lambardar.	Ahmad Yár. Allah Yár. Muhammad Khán, lambardár.
Nilá	Jahán Khán	Muhammad Sháh.
Pachnánd	Jahán Khán	The other lambardárs.
Dhermund	Núr Khán (more or less agrees with Abbás of Tamman).	
Tamman	Abbás Khán ...	Sháhnawáz.
Tráp	Aulia Khán ... ... Fatteh Khán.	Budha Khán.
Multán	Dilásá Khán	Fatteh Khán.
Pátwálí	Ghulám Hussain ...	Manga.
Budhiál	Muhammad Khán ... Faiza.	Haidar.
Dhaular	Khán Bhára ... ... Muhammad Nawáb Khán, his uncle.	Muhammad Khán. Fatteh Khán.
Mogla	Allah Dad Khán, &c. (not much to do with the Láwa parties).	Aulia Khán.
Saghar	Allahyár Khán	Sultan Mahmúd.
Sangwála	Khán Beg	Muhammad Khán.
Pihra Fattiál	Muhammad Ashraf.	
Tallagang	Fazl ... ... Fatteh Khán	Fazl Iláhi. Muhammad Khán
Jhátla	Ghulám Muhammad ...	Fatteh Khán.
Chinjí	Nawáb Khán	Other lambardárs.

These factions have ramifications extending into the Pind Dádan Khán Tahsil, over the Shahpur Salt Range and down into the Shahpur plains; it should be noted that in some cases, *e.g.*, in Tráp and Multán, the adherents of the rival parties are very good friends amongst themselves; elsewhere the contrary is the case, as in Dhaular and Saghar, where they quarrel vigorously with each other, but have really very little interest in the Láwa factions.

The party feeling shows not the slightest sign of dying out, as from the fact, that the rival factions in Láwa intermarry freely, it might have been expected to do; Sultán Mubáriz, for instance, is a near relation by marriage of Ujjal Khán, and so with nearly all of them; but in this matter of marriage they are perhaps driven by necessity, as amongst the Awáns marriage within the clan or Múhí is usual; so they have not much choice. But in some villages

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mentioned above the partisanship is of a lukewarm character, and amounts to little more than this, that if a member of one of the parties has occasion to go to the village he will put up with the local adherent of the faction to which he belongs.

The principal Awáns are in Tallagang Tahsil, Ujjal Khán, Sultán Mubáriz, Aziz Khán, Muhammad Khán, Sher Muhammad, Ahmad Khán, etc., all of Láwa; Sháh Nawáz and Abbas Khan of Tamman, Sarfaráz Khan of Tráp, Gulám Mahomed of Pátwálí, Mir Khán of Dhermund, Fazl Khán, Fazl Iláhí and Fatteh Khán of Tallagang, Mahomed Ashraf and Subedár-Major Mahr Khan of Pihra Fattiál, Allahyar Khán, etc., of Thobá; Khán Bhára of Dhaular, Jahan Khán of Pachnand and Allahdad of Mogla; in Pindigheb Tahsil, Nurkhan Zaildar of Dhák, Fateh Khan of Jalwál, Fateh Mahomed of Maira, Fateh Khan of Jand, Fateh Khan of Jángla, Naib Tehsildar, Abdul Rahman of Nawara, Mahomed Khan, Ressaldar-Major, Pindigheb; in Fattehjang Tahsil, Akbar Ali, Zaildar, Jhán and Sherzaman, Inamdar, Batthu; in Attock Tahsil, Malik Mahomed Amir Khan of Shamsabad, Jagirdar and Zaildar, and Malik Hazat Khan, Zaildar of Bhallar Jogi.

Patháns.

Next to the Awáns in numerical importance come the Patháns who number about 38,000 and make up 8 per cent of the total population of the district. There are two Pathán settlements in the district, one in the south-west corner of Pindigheb Tahsil at Makhad and in the Narrara hills, the other in Attock Tahsil, chiefly in the Chhachh *iláka.*

The Sagri Patháns of Makhad.

The Pindigheb Patháns number about 6,500 and are practically all Sagri Patháns, a branch of the Bulaki Khataks. The Bábar family of the Bangi Khels, who are a practically independent sept of the Sagri clan, occupying portions of the Mianwali and Bannu districts, is also represented in the Narrara hills, and there are also about six hundred members of the Jamal Khel sept.

Beyond any doubt the Sagri Patháns came across the river from Kohat and drove out the Awáns, whom they found in possession. They are said to have conquered the Awán country as far east as the Jhelum, but about the middle of the 17th century they relinquished the greater part of this tract. Their advent to the district was comparatively late. The Khataks had not established themselves in Kohat till the end of the 15th century, and their first conquests were north and south of Kohat on the western bank of the Indus. The present family of Makhad appears to have established itself there in the time of Ahmad Shah Durani and in Akbar's time the Khataks were all across the river. There is no historical record of their connection with this district before the Durani invasions. The story of their conquests up to the Jhelum is probably unfounded or at most is based only on occasional marauding raids. Before Sikh times they had settled

down to their present limits and remained in their breaches in the turbulent days of violence and the rise of the Ghebas. Their settlement in the district is probably not earlier than the middle of the 18th century. They own 7 villages of which Makhad and Narrara are the largest. Hadowali is their boundary on the east, where the Awáns are their neighbours, and is said to derive its name from this fact. Throughout the tract they occupy they have completely dispossessed all other tribes, and live completely apart from the rest of the district marrying only among themselves, and having little to do with the other inhabitants of the Tahsil. They are good cultivators though their country is stony and infertile. Of fine physique and brave independent character, they make excellent soldiers and take military service freely. Every village is full of military pensioners and the number of native officers is large. Many of them become merchants, and more still trade in sheep and goats. With the Khatak love of horses, several gather ponies from the frontier and trade with them as far south as Calcutta. Their country is poor even for Pindigheb, but what with pay, pensions and the profits of trade, they are generally in good circumstances. Their speech is the soft or western dialect of Pushtu, though almost all the men can understand and use the Punjabi of the district.

Though not generally popular with Punjab officials, who do not understand the language or the ways of Patháns, they are yet one of the most manly tribes in the district.

Their head is the Khan of Makhad who owns Makhad and has large jagirs and miscellaneous dues. The headship of the family has now for two generations fallen into unworthy hands, and the Khan has ceased to have any influence in his tribe. But the family is still looked up to by the tribe, and Dost Mahomed, uncle of the Khan, who by the custom of the family was given land enough for his maintenance alone, is popular, respected, and influential in spite of the Khan and has been made Zaildar. Fatteh Khan, Zaildar, Narrara, has a good deal of influence, even in a tract full of retired native officers, many of whom have been awarded titles of Sardar Bahadur, Khan Bahadur and Shamsher Bahadur.

The Attock Pathans.

The Attock Patháns, who are responsible for half the revenue of that Tahsil and own more than a third of it, are to be found in all the circles, but are only a small body in the Sarwala. In the Chhachh they own 78 per cent of the circle, including all the best lands, pay 78 per cent of the assessment, and comprise 82 per cent of the landowners. In the Nala circle they lie chiefly along the line of the Haro, and own a quarter of the circle, paying a third of the revenue.

These Attock Patháns have nothing to do with the Sagri Patháns of Makhad from wham they are separated by the Kala

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the matter into court, executed yet another bogus sale deed purporting to transfer the land to D, A's son, with whom A was on bad terms, thus ingeniously stirring up a family quarrel, from which A could reap no real advantage, even if he succeeded in a suit against his heir."

Though of good physique the Pathán does not readily take military service. That means a sacrifice of independence and the Chhachh Páthan is more of an attorney than a fighting man.

The chief men of the Attock Patháns are Gulab Khan and Najf Khan of Ghurgashti, Muzaffar Khan and Mirdad Khan, Malik Mala, Bahadur Khan of Babbudi, Mahomed Khan of Sarwana, Mahomed Azim Khan, Honorary Magistrate, Hazro; Hafiz Sher Mahomed Khan and Shahbaz Khan, also of Hazro; Ali Akbar Khan of Yásin, Mahomed Amir Khan of Waisa, Sher Dil Khan of Shinka, Ali Bahadur Khan of Islámgarh and Mir Afzal Khan and Humayun Khan of Harun.

Jodhras.

By far the principal tribe in Pindigheb, and perhaps the tribe of highest standing in the whole district is the Jodhra tribe. They inhabit the south-east of Pindigheb Tahsil, the valley of the Soan extending on the south to the Tallagang border, and on the north reaching to the watershed which runs across the Tahsil, and along the Fattehjang boundary running up as far as the railway. They own only a little less than a third of the cultivated area of the Tahsil, and pay rather more than a third of the revenue.

Their own account of themselves is that they are of Rajput origin and derive their name from Jodhra who was converted to Muhammadanism by Mahmud Ghaznavi and settled in Jammu. Some generations later they migrated to the Sil valley and founded Pindigheb (then called Dirahti) on the north bank of the Sil. Later they moved their colony to the south bank. At any rate they are of Hindu origin, still retaining traces of Hindu customs in their festivals and ceremonies. Another account gives their original home as Hindustan. They appear to have come to the district about the end of the 16th Century as a small band of military adventurers. They possessed themselves of the Soan and Sil *ilakas* and much of Tallagang, ruling these tracts from Pindigheb. Awáns, who were in possession, were not evicted, but remained on as tenants under the conquering Jodhras. The Jodhras never themselves cultivated. The former owners sank to the status of tenants. Ownership of the soil vested in the newcomers who were regarded as independent chieftains paying no revenue to the Government of the day further than an occasional present of a horse, mule or hawk by way of *nazrana* or tribute, and keeping up large bodies of armed retainers. Their government over the surrounding country was probably close. Though engaged in constant strife with the surrounding tribes they

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found time to develop the resources of the surrounding country, and founded the great majority of the villages in which they now possess rights of various kinds. Their power was recognised by the Moghals, and Malik Aulia Khan, who is the first Malik of much importance known to history, held a revenue assignment of Pindigheb, Tallagang, and parts of Chakwal and Fattehjang. It was probably he who overran Tallagang. His son Malik Amanat Khan was equally powerful. In his time the Sikhs came. They found the Jodhras at their zenith. Apparently there was little difficulty in imposing a rough Sikh superiority on the small but warlike tribes of the district, but systematic government was never attempted. In the chapter on History the available information on the Sikh period has been given. It is enough here to notice how the Jodhras declined. At once they lost Tallagang and Chakwal over which they had never really established their authority. Gradually the great power of the Pindigheb family was frittered away. It had always been the centre of the Jodhras, the trunk from which all the outlying families branched off, and the fountain of all authority. First the Langrial family was allowed to secede. Then the Khunda, Kamlial and Dandi families broke away. Finally the rise of the Ghebás robbed them of the Soan, curbed their power, and gave them a restless and energetic rival at their doors. During this troubled time the ruling family contained no men of power. The chiefs were lazy, licentious and incompetent and from a love of ease allowed great opportunities to slip past. But they are still the nobility of the tahsil. They number less than two thousand, and still retain their position of grand seignors. Their love of sport, especially hawking, show and horses, and their abstinence from cultivation are still in the opinion of the countryside the proper characteristics of Jodhras. In a few villages subdivision of holdings has gone so far that the Jodhra is compelled to work for a living, but the great majority cultivate through tenants. They are generally fine, well-made men, delighting in field sports, but jealous and litigious and much divided by rivalries and animosities. Nowhere is the proprietary body so strong and the control over tenants so assured as among their neighbours. Some are very prosperous. Others have passed through adversity. In general they are much less prosperous than the neighbouring Ghebás.

There are five principal families of the Jodhras. By far the most important is that of Pindigheb. Two branches of the family are recognised, and at present there are three members of the senior branch and two of the junior. The elder branch is that of Aulia Khan, the members being Malik Gulam Mahomed, who is the head of the whole family, Malik Jang Bahadur Khan, and Malik Zamurad Mahomed Khan. The second branch is that of Fatteh Khan, whose members are Mahomed Akbar Khan and Mahomed Amir Khan. Despite the weakness of their represent-

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atives during Sikh dominion and at annexation, the family still has great possessions. The five Maliks now own six entire estates and the greater part of six other villages, and have talukadari rights in 26 other villages.

According to the custom of the family the eldest son always gets two shares, so that the present head of the eldest branch owns one-third of the whole property. This family is well off, but subdivision and quarrelling have prevented them from attaining the position achieved by the solitary Sardar of Kot. The Pindigheb Maliks are closely related by marriage with the Kot family, the present head of the Pindigheb family being, indeed, the son of Fatteh Khan's daughter. Ancestral feuds, however, have not been forgotten, and too much blood was spilt on either side before annexation for the breach ever to heal entirely.

Next in importance to the Pindigheb family are the Jodhras of Khunda. They are numerous, but do not hold on hereditary shares, so that most of them have but small holdings, while a few have large estates. In all, the Khunda family own 18 villages in the north-east corner of the tahsil. Among the large owners subdivision has not gone far. Itibar Khan, who succeeded his uncle Abdulla Khan, is now the largest landowner in the tahsil, not excepting even the head of the Pindigheb family. He is a man of great natural ability who has produced very different impressions on different officers with whom he has come in contact. He has great influence in the centre of the tahsil. Within recent years Malik Itìbár has acquired a good deal of land in the surrounding villages and in the Awánkari, and still continues to add field to field.

Jahán Khan, another member of the same family, also of Khunda, bears a very high character. Both he and Itibar Khan are Zaildars. Both are great horse breeders, being seldom without several good animals. The enmity between them is a factor in Pindigheb politics. Other prosperous members of the Khunda family are Nawab Khan, Khan Mulk, and Mahomed Khan. The Dandi family own ten villages and reside at Dandi on the north bank of the Sil opposite Pindigheb. They are closely related to the Pindigheb family, but subdivision has gone far, while litigation and quarrelling have reduced them to comparatively poor circumstances. The chief man in Dandi is Gulam Mahomed, pensioned Subedár and Zaildar.

The Kamlial family own seven villages. They are now very numerous and only a few of them are at all well off. Their chief man, Allahyar, is not a man of much mark, though Zaildar in the Kamlial tract. The Langrial family, owning three villages, still have a great deal of land, but they are famous for debauchery and extravagance, and much of their land has gone beyond recall. They have no members of any note. The Jodhras possess a great

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deal of influence in the district. Native officials who do not please them are likely to find themselves very uncomfortable. They do not take military service readily, but their numbers are so small that at best they could provide few recruits.

Ghebas.

The ancient enemies and rivals of the Jodhras are the Ghebas. They inhabit the western portion of Fattehjang Tahsil, a solid block of villages reaching to the Kala Chitta on the north, to Fattehjang and Sagar on the east, and almost to the Sil on the south. They cover 34 per cent of the total cultivated area of Fattehjang Tahsil, and pay 19 per cent of the land revenue. They are found in no other Tahsil. Their numbers are small. The table on page 65 gives the number of Gheba owners as 1,587, but the enumeration is faulty. Most of them own land in several villages and are counted over and over again in each village, while a few petty villages of small holdings and numerous owners have been included only on the ground that they claim connection with the Ghebas. The total number of true Gheba owners cannot be as much as 500. Of recent years an attempt is being made to enlist Ghebas in the Native Army, but the project is foredoomed to failure as the Ghebas do not exist who could enlist in any considerable numbers.

The origin of the Ghebas, like that of many other tribes in the Western Punjab, is obscure. They themselves claim Moghal origin, and are always entered in the revenue papers as Moghals, resenting the use of Gheba as applied to them. In the census enumerations they have always returned themselves as Moghals. Gheba they describe as simply a nickname applied to them because they live in the Gheb. Another account which they give of themselves and which is generally accepted in the countryside connects with the Sials of Jhangs and the Tiwanas of Shahpur. The story of Teo, Seo and Gheo, from whom the Tiwanas, Sials and Ghebas respectively are descended, is well known. This assertion is destructive of their claim to Moghal origin, and would fix the Ghebas as of Rajput Punwar origin. Another theory is that they are really a branch of the original Jodhra tribe who quarrelled with the others, and took the name Gheba, which till then had been simply a title used in the tribe. The fact that the town of Pindigheb was built, and is still held, by the Jodhras, and not by the Ghebas, lends some support to this statement. Whether Gheb is simply "the country of the Ghebas" or Gheba simply "an inhabitant of the Gheb," the tribe is almost certainly indigenous to the Punjab, and foreign to the district. The settlement of the tribe was almost exactly similar to that of the Jodhras. They were a small warlike band, irresistible to the Jats, Gujars and Awáns who preceded them and always brave and powerful enough in the turmoil of inter-tribal strife to retain the tract they had won. They appear to have come to the district about the same time as the Jodhras, and from the first to have settled in

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the tract between the Kala Chitta and the Khairi Murat. Their history makes it not improbable that they were in some way dependent on the Jodhras of Pindigheb, their position being not very different from that of the Khunda and Kamlial branches of the Jodhra tribe. A not improbable conjecture is that they were a small band of broken Rajput families, fleeing from the Central Punjab, who joined the Jodhras, and settled down on their borders. Till 1825 they certainly occupied a position subordinate to the Jodhras of Pindigheb, who till that year were responsible for the revenue of the Gheb. The later years of Sikh rule are the period of Gheba rise first to complete independence, then to equality with the Jodhras. Rae Mahomed Khan of Kot was the first chief to exalt the horn of the tribe. He was a man of much power and energy, so influential that he stood to the Sikhs in the relation of an ally rather than a subject, and so turbulent that the record of his violence and crimes remains to this day. With the name of his son and successor Fatteh Khan, the glory of the Ghebas is inseparably connected. At the head of the Ghebas, though at feud with most of them, and owning 13 entire villages, about two-thirds of eight other hereditary villages, and in addition shares in several other villages, which he bought or in other ways acquired, he was for many years supreme in his country under the west corner of the Khairi Murat. Invested with magisterial powers in his own *ilaka*, feared and admired by all, he wielded an amount of power which was perhaps unique outside an independent state. Even to the present day the Kot estate is always called the Kot *riásat*, and the administration is the *sirkár*, while officials of the Government are known but as "English officials." Such an administration could not have been left for so many years had it not been substantially just and honest, and liked by the people.

But in spite of their prosperity and power the Ghebas have never held a very high place socially. They intermarry freely with the Jodhras of Pindigheb, and with the Alpials of the Sil Soan, but though they give in marriage to big Awán families, Awans do not generally give to them, nor look upon them as their equals. They have nothing of that pride of birth which is so marked a characteristic of the Gakkhars and Janjuas of Rawalpindi. Generally the Ghebas are well off and thrifty, and though they all hate one another and love to tell of former murders and treacheries, yet there is ordinarily neither litigation nor crime among them, still less extravagance. The Ghebas of Dhurnal alone have fallen on evil days, and provide to the countryside a wholesome example of the evils of litigation and extravagance. They own 58 villages.

They are a fine, manly, well-built race, delighting in hawking and field sports, horse breeders and good horsemen, and not unlike the Jodhras, with whom they alternately fought and

intermarried. Most of them are still well off, and they own far too much land to cultivate with their own hands. As landlords they are severe with their tenants, but are not unjust, nor are they generally disliked, while they are always ready to turn out with all their resources when anyone attempts to trouble or interfere with their tenantry.

Their bitter feuds with the Jodhras and Alpials, and the even more determined feuds among the principal Gheba families have not yet died out. The marriage of Malik Aulia Khan, of Pindigheb, with the daughter of Sardar Fatteh Khan, of Kot, coupled with the separation of the Fattehjang Tahsil from that of Pindigheb, did something to close the bitter blood feud, but intermarriage between the families of old enemies has little effect in stopping the dearly cherished ancestral feuds. The intermarriage goes on freely, but the ill-feeling, though perhaps softened, still remains. The different families cannot now openly attack each other, but it is very doubtful if they like each other any the better for that.

The Sardar of Kot is the most important of all the Ghebas. Fatteh Khan died in 1894, when his property with his *jagirs* passed to his brother's grandson, Mahomed Ali Khan. Since 1903 the estate has been under the Court of Wards, the Sardar, Mahomed Nawaz Khan, being a child of about 9. Hassu Khan, one of the Sardar's distant collaterals, owns large shares in several of the Sardar's villages, and is a zaildar and jagirdar.

Next to the Kot family the most important family among the Ghebas is that of Malál. This family calls itself Bhandiál, from Rai Bhandi Beg, an imaginary Moghal ancestor, but is in reality of Rajput descent, like the rest of the Ghebas. It has always been at feud with the family of Kot, and it was its head, Budhá Khan, who was concerned in the assassination of Rai Mahomed Khan, of Kot, at Pahag in 1831. The present head of the family is Fatteh Khan, a man of fine presence and good repute. He and his four brothers are prominent men in the countryside, but are not on good terms with each other. Hayat Khan is a man of much ability, not generally popular, and Mehr Khan, among brothers all devoted to horse-breeding, is famous for his veterinary skill.

The Ghebas of Dhurnal own four villages. Their headman is Nur Khan, son of Drab Khan, of Dhurnal. The family of Shahr Rai Sadullah also owns four villages, while the Ghebas of Mánjia, own three villages. The chief Gheba in Manjia is Sarfaraz Khan *alias* Faja Khan, zaildar, and in Shahr Rai Sadullah Karm Khan, *inamdar*. The three branches of the tribe are Rawal, Bhandial and Sihál. The Kot, Dhurnal and Shahr Rai Sadullah families are Rawals. The family of Malal is Bhandial, and the Manjia family is Sihál.

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Alpiáls.

The Alpiáls are quite unlike the two tribes which have just been described. They have all the characteristics of Awan owners and have nothing in common with the large landed proprietors of Fattehjang and Pindigheb Tahsils. They are confined to the Sil Soan circle of the Fattehjang Tahsil, and most of themhold land along the banks of the Soan.

By origin they are admittedly Rajputs and at the census of 1881 recorded themselves as Manj Rájpúts. They appear to have come to the district about the same time as the Jodhras and Ghebas, having first wandered through the country now contained in the Khushab and Tallagang Tahsils before settling down in the southern corner of Fattehjang. There are still traces of Hindu origin in their marriage ceremonies as is the case with many of the Rájpúts of the district.

They own 32 villages in Fattehjang. Holdings among them are small, averaging a little over five acres. Hardworking and excellent cultivators, generally tilling their own land and working laboriously on their own wells, they have taken only a small part in the more lurid history of the district. Socially they rank high, intermarrying freely with the Ghebas. They are a bold, lawless set of men, of fine physique, much given to violent crime, sturdy, independent, and wonderfully quarrelsome. They are generally called litigious but are a thrifty folk, and seldom carry their cases to a civil court, while in a revenue court a great deal of trouble can be caused to neighbours and enemies and a great stir made with but little trouble and at small expense. They number a little over nine thousand. Of late years Alpials have begun to be enlisted in the army, and the experiment deserves to succeed, for these men should make fine soldiers, and in the wider atmosphere of the army may forget the petty quarrels of their valley.

With the exception of the Chakri family, which owns a good deal of land, there are no large owners among them. Chaudri Ahmad Khan, son of Chaudri Sher Khan, of Chakri, a quiet unassuming man, is the only Alpial of much note. He is a Viceregal *darbari*, and a zaildar, and enjoys a *jagir* of Rs. 800. His son, Sultan Khan, is a subedar in the 67th Punjabis. Other Alpials are Allah Dad Khan, subedar pensioner, and zaildar, Chaontra, Allah Dad Khan zaildár, Parial, Alif Khan, Siál, and Nur Khan of Chakri.

According to the custom of the country the Alpials are split into two portions. The Chakri Chaudris in the wider district feuds have always sided with the Malál Ghebas against the Kot family, and have lost several members of their family in the strife.

Khattars.

The Khattars are at once the most mysterious, the most interesting, and the most unsatisfactory tribe in the district.

Ethnologically a problem more inscrutable than the Awán, socially of importance less than that of the highest tribes alone, politically a troublesome element in the district population, they form one of the most peculiar and curious tribes in the district. Their country, which is known by the name of Kháttar, lies on both sides of the Kala Chitta, and runs in a narrow strip east and west from the Indus and across the district, into Rawalpindi, where they own fourteen villages. They are thus to be found in Attock Tahsil, where they own 29 villages, in Fattehjung where their villages number 43 and in villages of Pindigheb Tahsil. Their numbers appear to have been underestimated at the various census enumerations, when many returned themselves as Awáns, but in all probability they do not exceed ten thousand. The census of 1901 showed their numbers as little more than six thousand, a decrease of nearly 9 per cent in ten years. The enumeration was almost certainly faulty. The revenue records, by a process of excerption not altogether satisfactory, give the number of Khattar landowners as 4,265. An estimate of ten thousand is probably not far off the mark. Their origin, as has been said, is obscure. They claim connection with the Awáns (explaining *ignotum per ignotius*) and the Khokhars, all three claiming Kutb Shah for their father, and tracing their descent from Ali. But the Awáns and probably the Khokhars repudiate the connection. The Khattar account of Khattar origin is given in Griffin's "Punjab Chiefs" under the notice of the Dhrek family. Briefly it amounts to this. Chohan, the youngest son of Kutb Shah, the ancestor of the Khattars, and an officer of Sultan Mahmud Ghaznavi, seized Bágh Niláb, in his days a large city, on the Indus, dispossessing the Hindu chief, Raj Deo, and made it his headquarters. For many years his descendants held Niláb, till the Hindus in the time of Khatar Khan, growing powerful, drove them out across the river and into Afghanistan. But Khatar Khan, who had entered the service of Mohamad Ghori, soon returned, and in 1175, when his master was preparing to attack India, repossessed himself of Bagh Niláb by a stratagem. From that time date the present name of the tribe, who took the name of their leader, Khatar, the six chief divisions and the tribal dispersion over the present Khatar. Of the sons of Khatar Khan—the story is repeated to give the present day divisions of the tribe, and their distribution—Sarroo Khan built Serhal. His descendants are known as Serhals, and are found in Pindi Serhal, Bahtar, Jhang, Bahlol, and Feroz Shahi. Feroz Khan, whose descendant are called Ferozals, went to Fattehjang. The Khattars of Fattehjang, the Dhrek and Wah families, and the Usman Khattar branch in Rawalpindi are Ferozals. Jand Khan crossed the Kala Chitta, and settled south of that range near the Indus in the *ilaka* which is to the present day called after him Jandál. The Nara Khattars are called Ranials from a descendant of Jand Khan. Those of Nathial, Thattha, Darnil and Basal are called Jandals.

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The Khattars of Gakkhar also are Ranials. Isa Khan's descendants, who are called Isials, are found in Choi Ghariala and Deerkot, north of the Kala Chitta. Balu Khan's descendants live in Barota, where the Haro falls into the Indus, and in other villages between Bagh Niláb and Attock, and are called Balwals. Mehra Khan's descendants live in Serai Kharbuza in Rawalpindi. The Gharials who live in Akhori, north of the Kala Chitta, are descended from Feroz Khan. When this dispersion was complete, and about three generations after Khatar Khan, the tribe lost Bagh Niláb, but retained possession of the open country between Rawalpindi and the Indus. Conjectures on Khattar origin are as various as the theories which seek to explain the Awáns. Mr. Steedman believed their claim to Awán origin, and said that an Awán admits it, but looks on the Khattars as an inferior section of the tribe to which he will not give his daughters in marriage. Others assign the Khattars a Rajput origin. Griffin thought that they were originally inhabitants of Khorasan who came to India with the early Mahomedan invaders. Cracroft noted that "one or two of their customs relating to marriage seem to point to their having been of Hindu origin. They may have been converted to Mahomedanism during one of the Sultan's (Mahmud Ghaznavi) invasions." General Cunningham would identify them with a branch of the Katar, Cidaritae or Little Yúcha, from whom the Gújars also are descended.

What is certain is that they came to the district before most of the tribes now prominent. They may have preceded even the Awáns, and been driven on to the Kala Chitta on the south by the Awán invasion and on the north by the hordes of foreign conquerors. Their own traditions would make them later than the Awáns, whom they alleged they dispossessed. But in the present state of knowledge they must be left an enigma. They may be an indigenous Punjab tribe, neither Jat nor Rajput, but resembling the Awáns, whose residence was now cis-Indus and now trans-Indus, and who finally settled down in the comparative security of the Kala Chitta. Of their neighbours, Ghebas, Jodhras, Alpiáls and Awáns, they have affinities only with the latter, and it may be that the solution of the Awán problem would clear away the mystery that surrounds the Khattars.

Of their history within the district not much is known. They took little part in the turmoil in Pindigheb and Fattehjang in which the Ghebas found so excellent an opportunity, but they certainly prospered and extended their villages at Awán expense. Never do they appear to have attained any commanding position. Cracroft says they intermarried with the Khataks, and thus acquired further power in the *ilaka* and they remained on good terms with the Sikhs, who allowed the principal families to retain their *Chahárams*.

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No one has ever had a good word to say for the Khattars. Bad agriculturists, bad landlords and bad revenue payers, lazy, dissolute and extravagant, they have always been a troublesome tribe. The Khattar has always had an unenviable notoriety for crime; they are all at feud with one another; none render any assistance to the administration; crime is rife, and litigation of the most expensive kind continuous and unceasing. Socially they hold an intermediate position. They rank below Gakkhars, Awáns, Janjuas, Jodhras, Ghebas, and the higher classes of Rajputs, but above the Jats or Zemindars.

Holdings are large, averaging about 50 acres in Attock Tahsil, 45 acres in Fattehjang, and 21 acres in Pindigheb. In the last Tahsil the Khattars, like the neighbouring Awáns, are in a depressed state. The lazy dissolute habits which distinguished all Khattars, combined with comparatively small holdings, have brought them misfortune.

Much of the Khattar land is held by tenants, and the Khattar is a conspicuously bad landlord. He generally collects rents in kind, and is nearly always harsh and unreasonable, squeezing the tenants just when he should be generous, and unable to finance his tenants in times of distress and protect them in times of trouble. As a result he cannot collect rents or keep tenants so easily as better men can.

The chief family is that of Dhrek in Fattehjang, the various members of which own ten villages in the Fattehjang Nala, besides other villages in Attock and in Rawalpindi. The family is described in Griffin's "Punjab Chiefs." It has suffered much from internal feuds, ruinous litigation and bad conduct. The heads of the family are Nawab Khan and Karm Khan, who live at Dhrek, and lost their share of the *jagir* by confiscation in 1906, Dost Mahomed Khan and Jahan Dad Khan of Bahtar, who each enjoy *jagirs* of Rs. 372-12, and Lal Khan, whose *jagirs* amount to Rs. 500 per annum. Jahan Dad Khan is under restraint in the Lunatic Asylum, Lahore.

The Khattars of Fattehjang itself, a numerous body, own seven villages. Their chief men are Samundar Khan, Divisional Darbari and Zaildar, Maula Dad, Fatteh Khan, all of Fattehjang. The Khattars of Kutbal own three villages in Fattehjang and two in Rawalpindi. There are no big Khattar families in Pindigheb Tahsil. Sadullah Khan, of Thattha, is a pensioned subedar, Khushál Khan of Nára, and Mahomed Khan of Pind Sultani are inamdars, but no one is of commanding importance.

In Attock Tahsil the chief Khattar family is that of Wah, described in Griffin's "Punjab Chiefs."

Janjuas

Janjuas are now a very inconsiderable element in the district population. They own Jangal and two other villages in

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Fattehjang Tahsil, and Kot Sarang and an adjoining village in Tallagang. But beyond any doubt they were in early days predominant throughout the whole district from the Salt Range to the Kala Chitta. Bábar frequently mentions Malik Hast, Janjua, describing him as "the Hákim of the Ils and Uluses in the neighbourhood of the Soán," and says that the Janjuas have been "from old time rulers and lords" of the Salt Range hills and of the tract between Niláb and Bhera. Probably Janjua occupation was more a lordship over subject races, Jats and Gujars who tilled the soil, than cultivating possession. This explains their almost total disappearance from the district. Their dominion, overthrown in Rawalpindi by the Gakkhars, in this district fell before the Awáns and the Khattars. Long before the Jodhras and Ghebas came, the Janjuas had disappeared. They make no appearance on the dark stage of later district history and there is in popular imagination no trace left of the days when they ruled the whole of the central uplands. Their social position and the respect in which they are held is due to the position which they occupy in the adjoining districts of Rawalpindi and Jhelum. They are more in the district than of it, and it is not intended to discuss their origin and history. Reference must be made to the Gazetteer of Jhelum district.

They are essentially men of good birth, proud of their ancestry and readily engaging in military service especially in the cavalry. As agriculturists they are not praiseworthy, and their habits are unbusinesslike. Physically they are well-built with a noticeable firmness in hands and feet. They are usually addressed as Raja, and rank high in the social scale. Widow remarriage is not practised, and daughters are given only to Janjuas or Sayyads. In Tallagang the only Janjuas worth mention are the representa tives of the once powerful Rajas of Kot Sárang, who are fast falling into insignificance. In Fattehjang the Janjua family of Jangal is popularly held in considerable esteem. Shahvali Khan, its head, is a zaildar, and a man of some position.

Miscellaneous Rajputs.

Of miscellaneous Rajputs the most important are the Bhattis and Chauhans. The latter are found practically in Pindigheb alone though there are a few in Fattehjang. Their headquarters are at Khaur in the south-east corner of Pindigheb Tahsil and they own three other surrounding villages. They are fair cultivators, but are given to litigation, and are in consequence not in good circumstances. Socially they hold a very high position and are on friendly terms with the Jodhras of Pindigheb. Their chief representative is Nawab Khan, of Khaur, who is a zaildar.

Bhattis are scattered throughout every tahsil in the district. In Tallagang they hold seven villages, three of which lie below the Salt Range, and the rest in the north-east corner of the Tahsil near the Chakwal border. They are here unpretentious, hard-working

cultivators, little esteemed socially. In Pindigheb they hold lands as full, or as inferior proprietors in the group of villages over which the Pindigheb Maliks have *talukadari* rights. In Fattehjang Tahsil they own seven small villages chiefly on the Rawalpindi border. In Attock Tahsil they are of importance only in the Nalla circle where they own two villages. Everywhere they are good cultivators and landlords, and bear a good character, but are of little social repute. Indeed it is worth remark that although there is some reason for believing that this tract is the original home of the Bhattis, and that the prominent tribes are of Bhatti Rajput origin, yet the tribe is of less social and political importance here than in almost any district of the province. There are no Bhattis of sufficient prominence to deserve mention with the exception of Malik Jahan Khan of Hathar, Fattehjang, and Fateh Khan zaildar, Hasan Abdál, and the tribe is important only as an industrious though small body of the agricultural community.

Malliars.

Of agricultural tribes who occupy an inferior social position, the most important is the Malliár. They amount to eight per cent of the total population in which they bulk as largely as Páthans. Every Tahsil is full of them, but they are most numerous in Attock Tahsil. In all circles they own land in full proprietary rights and also cultivate for others; in the Attock Nála they own four whole villages. But it is not as proprietors but as cultivators that they are important. In Attock though owning only 2 per cent of the Tahsil area, they cultivate 10 per cent, and there is the same disparity elsewhere. As cultivators they are unsurpassed, and are particularly successful on well-lands. More than half the well-irrigated lands of the district are in their hands. If farming of a particularly excellent character is met with on a well, the cultivator is sure to be a Malliár. They excel in raising garden produce, tobacco and sugarcane. Unlike the ordinary *zamindars* they have not the feeling that it is shameful to sell vegetables, and Malliár women may be seen selling the produce of their wells in all the towns and large villages of the district. They cultivate *barani* lands to any extent only in Attock Tahsil, where they are as successful as on well-lands, as the village of Losar Sharfú bears witness. They are distinguished for success as agriculturists, for thrift, industry and business-like habits, and for nothing else. As a tribe they have no headmen, no history, and no close tribal organisation. With the Arains and Baghbans of the central and south-western Punjab they have no connection. The name "Malliár" appears to denote the occupation of the holder rather than the caste to which he belongs or the tribe from which he originally sprang. There can be no doubt that many of the present day Malliárs are descended from an ancestor of some other tribe who took to market-gardening as an occupation. Ranking first as cultivators, they rank lowest in the social scale of all agricultural tribes. They are fond of calling themselves by the name of some

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other tribe higher in the social scale and at census many returned themselves as Awán, Janjua or Bhatti Rajput.

Gujars

Gujars, who are an important element in the agricultural population, are not found in the Tallagang and Pindigheb Tahsils. In Attock Tahsil they number 6·5 per cent of the total population, own 14·2 per cent of the cultivated area, and pay 14 per cent of the revenue. They are found in every circle, their interest being shown in the table below.

Circle.	Proportion of cultivated area of circle held.	Proportion of revenue of circle paid.
Chhachh ...	2	4
Sarwala ...	7	14
Nala ...	19	26

They own three villages in the Chhachh and seven small villages in the Sarwala : but the chief Gujar settlement is in the Nala, where they own 23 villages in the north-east corner under Gandgarh, along the Hazara border and on the Haro in Panjkatta. In Fattehjang Tahsil they own 15 villages, are found in different parts of the Tahsil, and own a small block of villages in the extreme south-west corner of the Sil-Soán circle. The most interesting point about the distribution of the Gujars is that they are not, even as tenants, found in the purely Awán portions of the district.

As in the case of the Awáns, so with Gujars : little or nothing is really known of their origin. Cunningham would trace their descent from the Yuechi Scythians who invaded North-West India in the first centuries before and after Christ. Ibbetson dismisses the theory of aboriginal descent, which " is to my mind conclusively negatived by his cast of countenance " but thinks that " throughout the Salt Range tract, and probably under the eastern hills also, they are the oldest inhabitants among the tribes now settled there. " The tribal tradition is that they are by origin Rajputs of Hindustan who in some distant age migrated to Gujrat, which they found a good place for their cattle, and settled down under the Waráich Jats, to whom they paid revenue. In Akbar's time they migrated from Gujrat to this district. Whatever their original home, they still retain their peculiar dialect, apparently a dialect of Hindi betokening a southern origin, and they almost certainly came through Gujrat which the strong tradition regards as their home, just as the Bhattis look back to Bhattiana. As for their connection with this district, the date of their arrival is hidden in obscurity, but it is beyond question that they are

among the oldest inhabitants. Bábar mentions them as cultivators in his time. Never suited for dominion they first came under the rule of Janjuas, who allowed them to continue in possession of their small patches of cultivation and the wide wastes over which they grazed their cattle. Their next masters were the Awáns who drove them from a great part of the district, if they did not absorb them into their own tribe. In the succeeding generations they cultivated such land as they were able to retain in subjection to the various tribes who held sway, playing no part in the politics of the district, never able to rise to any importance, and looked upon with something akin to contempt by their more powerful neighbours.

Gujars appear to be a true homogenous tribe constituted by agnatic relationship alone. The name is said to be merely *gau char*, or cattle grazier, and the derivation has this to support it that the Gujars were originally graziers rather than cultivators, and still are so in many districts. Even in this district, where they have for many years devoted themselves to agriculture, they still retain traces of their former occupation, and keep milch-kine and buffaloes for profit more than any other tribe. It is said that their women may often be seen with veiled faces weeping over the death of a milch buffalo, and that the mourning on that occasion is second only to that when a member of the household dies. But the adoption of a grazier's life does not confer Gujar status or admit to the tribe. The tribe keeps very much to itself, and there is no evidence of heterogenity.

It is remarkable how much Gujars are disliked and despised by other tribes. Though good cultivators and often well off, they seem to be looked upon as little better than menials, and the appointment of a Gujar to any place of authority over any other tribe is always the signal for disturbance. Generally they are fairly well off. There are a few large proprietors, but most of the landowners are small men, cultivating their own holdings. As landlords they are good administrators, and look carefully after their property. As cultivators they are among the best in the district. Their villages in the Attock Panjkatta, irrigated by the Haro, are well farmed.

In physique they are of the same type as the Jat, whom in many ways they much resemble. Their proneness to thieving, where circumstances permit, quarrelling and intriguing are blots on their character, but not much more evil can be said of them. They differ entirely in character from the idle, thievish and cowardly Gujars of the southern Punjab. Though not blessed with many attractive qualities, they are quiet, industrious, and unassuming. It is a great grievance that the army is closed to them, but a good many find their way in by assuming another tribal name.

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Their chief men are Nawab Khan of Balot and Gulam Mahomed of Gila Kalán in Fattehjang, and Sarfaraz Khan of Hisár, in Attock.

Jats.

The Jats play a very inconspicuous part in district politics. They number close on twelve thousand, and are found only in Pindigheb and Fatteh Jang Tahsils. But there is no Jat tribe of common descent and with common traditions. The word "Jat" seems to include all who live by agriculture, but have not the courage to claim Rajput ancestry, and are not Gakkhars, Moghals, Khattars, Awans or Gujars. It is not clear when they came into this district or whence; though it is certain that they are all converted Hindus, and must have come originally from the east, if they are not aboriginal tribes or their descendants. It need hardly be said that, physically and in appearance, no difference can be discerned between the ordinary Rajput and the ordinary Jat. No doubt the original Jat stock has received many accretions from other tribes in the district, who in the course of generations have lost touch with their original connections, and have become merged in the great body of the cultivators. Indeed, according to one theory, the original stock itself was formed in this way. The Jat is a cultivator pure and simple, usually a tenant. The earliest mention of him dates from the time of Bábar. The Jat then divided the cultivating occupancy of most of the district with the Gujar. From the Awánkári he was displaced by the Awáns, who themselves cultivated the lands they had acquired. To the present day the Jat is very seldom met with in the Awán villages. He appears wherever the land is owned by aristocratic tribes, who do not themselves hold the plough. No explanation can be offered of his absence from Attock Tahsil, where 70 per cent of the land is held by tenants. In that Tahsil there are fewer Rajputs than in any other part of the district and it is not possible that the Jats have recorded themselves as Rajputs. It is equally unlikely that they have been absorbed by the other tribes, Pathans, Khattars, Awáns, Gujars, Malliars, and Sheikhs. They abound in the adjoining Tahsil of Rawalpindi. The Jats have never taken any share in the history of the district. A few are *kabza maliks* or full proprietors in the villages where the Pindigheb Maliks have seignorial rights, but nowhere do they form a large community and they own no whole villages. There are no men of note among them and as a body they are of little importance. In social position the Jat is at the botton of the agriculturist's scale. As a cultivator he is excellent, being surpassed only by the Malliars and equalled only by the Gujars. Generally Jats are well-behaved. Their physique is good or fair and they do not want spirit.

Sayyads.

Sayyads are much the same as Sayyads in other districts. They are revered as descendants of the Prophet, but a great many so-called Sayyads have no real claim to Sayyad origin. The

descendant of a member of an agricultural tribe, who has acquired a reputation for sanctity, sooner or later claims Sayyad origin, and in the course of time such claims are generally allowed. The process can be seen going on at the present day in more than one place.

Sayyads are scattered throughout every Tahsil, and make up about 2½ per cent of the total population. They are most numerous in Attock, where they own eight villages. Seven villages in Fatteh Jang, five in Pindigheb, and two in Tallagang are held by Sayyad owners. Fortunately their villages are usually small. Many of them cultivate their own land but they are the worst possible agriculturists. The common Sayyad who has to till his own holding, is usually a most worthless individual; lazy, querulous, quarrelsome and a very inefficient cultivator. They are almost all in debt, and have alienated mostof their land. But the Sayyad of better class who retains his circle of *murids* is usually a man of quite different stamp and is very influential with the Musalmán population and the tribes of the highest rank. Families high in the social scale are always ready to give their daughters in marriage to a Sayyad.

In Tallagang Wiláyat Sháh, and his brother, Ináyat Sháh of Danda Sháh Biláwal, are useful men of good standing.

The Pirs of Dhullian in Pindigheb, Pir Phul Badshah and Pir Karm Husain, are among the most influential Sayyads in the district, their disciples being found in many trans-Indus districts, and even in Kabul. Pir Gulam Abbas, of Makhad, a loyal, keen and energetic young man of about 23 years, is a power in the land. He is the acknowledged priest throughout the Pathan and Awán tracts. His followers are numerous in Rawalpindi, Gujrat, Shahpur, Jhelum and Lahore. A large number of Muhamadans of Kohat claim him as their Pir, and his pupils abound in the Mianwali and Kohat districts. Awáns form the larger portion of his followers; then come Pathans, Tiwanas, Sheikhs and other tribes. He joins freely in every day affairs, and travels about the district in some state. Of agricultural Sayyads Amir Haidar Shah of Thatthá Nur Ahmed Shah is an *inámdár*. The Pir of Ziárat Sháh Farman Sháh, in Pindigheb, is also well known. In Attock Mehdi Sháh of Mirza had a wide reputation and his brother Mahomed Shah is an *inámdár*.

Koreshis resemble Sayyads, but are even more heterogeneous. Koreshis.
If the door of Sayyad descent can be forced that of Koreshi descent is ever open, and he may enter who will. Koreshis number only a thousand or so and rank much below Sayyads. None have been returned from Attock Tahsil, but they are sprinkled about Fatteh Jang and Pindigheb. The Ṛupar family in Fatteh Jang is well known. There are seven brothers, of whom the most notable is Abdul Rabb.

Bilochis and Gakkhars.

Biloch and Gakkhar elements in the district are unimportant and do not require discussion. Gakkhar rule never extended west beyond the Margalla pass and only touched the eastern fringe of Fatteh Jang Tahsil, where a few members of the tribe are still to be found.

Jodh, Kahut, Mair, Manhas.

With the exception of Moghals the only remaining tribes notified under the Land Alienation Act, the Jodh, Kahut, Mair and Manhas tribes, are found only in Tallagang tahsil. They are found only in small numbers, stragglers from their homes in the Chakwál Tahsil of Jhelum. They were not found to be numerous enough for separate mention in the Census lists. The Jodhs are probably merely a branch of the Janjuas, and may be the Juds of Bábar. For a detailed account of the other tribes reference must be made to the Jhelum Gazetteer. The Kahuts own two villages on the Chakwál border. They claim to have come from Arabia and profess themselves of Koreshi origin. Another account is that they came from Jammu giving their name to the Kahuta Tahsil of Rawalpindi on the way. But they appear to be of Hindu origin. Their social position is not high.

The Mairs and Manhas, who may be the same tribe, own one village in Tallagang on the Chakwál border. They claim Rajput origin, with some show of reason, and state that they came from the Jammu hills. They bear a bad reputation for passion, revenge, jealousy, improvidence and recklessness, but are good cultivators. They rank slightly above Kahuts.

Paráchas.

Of the miscellaneous Muhammadan tribes the most curious is the Parácha. They differ completely from the Paráchas, or Muhammadan pedlars, who are found in scattered communities in the Central Punjab. They are Khatri converts to Islam, although their Rawalpindi brethren who hold a good deal of land, have been heard to claim Awán or Moghal origin in order to obtain the benefit of the Land Alienation Act. In this District they are a true caste, marrying only among themselves, and collected in two settlements at Makhad and Attock. The settlement at Attock is not flourishing owing to the diversion of trade by the construction of the Attock bridge. Their headquarters are at Makhad, where they have for long been on bad terms with the Khan. They hold no land, and are a race of traders, whose transactions extend to Turkistán and the cities of Central Asia. They deal in cloths, silk, indigo and tea and are said to derive their name from *párcha* "cloth," one of the staples of their trade. Another derivation is from *farrash*, a carpet, as they used to bring carpets back from Central Asia. Their own story is that their original home was the village of Dangot in Bannu, and that they moved to Makhad in the reign of Sháh Jehán, but another account describes them as Khatris of Lahore deported by Zamán Sháh. They are fairly prosperous, and still retain the Hindu title of Rája. They have no men of any note.

Moghals, Sheikhs.

Both these tribes are very miscellaneous classes. It is not possible to say to what extent those who claim to be Moghals really are so, but it is probable that the true Moghals of the District are very few in number. Such as there are, are descended from small Moghal settlements left by the various invading Moghal armies, and in consequence are found chiefly in Attock Tahsil. Elsewhere the Moghals, and they are found in all tahsils, have probably little real claim to the name. The reputation of the Moghals as a whole suffers from the fashion among men of low origin who have risen in the world, of selecting the name of this race to cover their real extraction. The tendency has received a fillip since the tribe was notified under the Alienation Act. But it is a curious fact that certain tribes, even of high social rank, have begun to call themselves Moghals. The Ghebas and others do so, and in the adjoining District of Rawalpindi the fashion has extended to Sattis, and even it is said, though this is doubtful, to Gakkhars.

If the Ghebas are excluded, Moghals hold land of a quantity more than inconsiderable only in Attock Tahsil. They own one village in the Sarwála and two in the Chhachh iláka. They are exceedingly conceited about their origin, are poor cultivators, and are not much thought of socially.

Sheikhs are usually comparatively recent converts from Hinduism, and accordingly contain many very varying elements. Their numbers have fallen almost 50 per cent since the census of 1891 and they now number less than four thousand. They are found almost solely in Attock Tahsil, and own ten villages on the sandy upland running from Campbellpur to the edge of the Chhachh. In the Sarwala they own 10 per cent of the cultivated area and pay 12 per cent of the revenue. In the Chhachh they are responsible for 4 per cent of the revenue and hold 3·3 per cent of the land. In the Attock Nala there are only half a dozen Sheikh owners. This Attock community represents the old kánúngo families of the tahsil, and a large proportion of the pawárís are drawn from their ranks. The majority probably are in Government service, or have relatives so situated. They are good cultivators or careful managers, and in Chhachh largely cultivate their own lands. Their social position is not high. Sheikh Shams Din of Tajib formerly held a high position in Kashmir State, and is now a wealthy zamindar. Mahomed Khan of Sáwá is an ínamdár.

The Hindus.

Hindus, who make up 8·5 per cent of the total population, are, by caste and in order of numerical importance, Khatris, Aroras, Brahmans and Muhials. The three first divide between them almost the whole trade and money-lending business of the District, the exceptions being the Parachas, the Khojas and a few Sheikhs, who are looked on with contempt by their fellow Musalmans. With the exception of the Muhials and a few Jagirdars and faqirs, and

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those in Government service, all the Hindus live by trade and money-lending. They are to be found in all the towns and larger villages. The smaller villages contain only one or two petty shopkeepers. A few acquired land in Sikh times, and are proud of their position as hereditary owners. But the great proportion of Hindu interest in land has been acquired by sale or mortgage.

More thrifty, patient and far-seeing than the Muhammadan peasant they have succeeded, often as the result of accumulated interest on small original debts, in getting possession of a large proportion of the land. Their hold is strongest in Tallagang, among the Awans and Khattars of Pindigheb, and in the Attock Nala. They do not themselves cultivate, and are with few exceptions harsh and exacting landlords. In the Awan tract money-lenders are found ruling the villages, raising the old customary rents, taking a share of the straw, breaking up grazing lands, exacting enormous usury, and attaching the plough cattle and selling the houses of their debtors. It is curious to note how little progress Sikhism has made among the Hindu population. In the adjoining District of Rawalpindi the proportion of Sikhs among the Khatri population is three times that in the purely Sikh districts of the Punjab. But in this District, perhaps because Sikh dominion was at any time little more than nominal, few Hindus have taken the *pahul*. Sikh Khatris are found practically only in the Fatteh Jang Soan and round Gandekas in the south-east of Pindigheb. No class has benefited to such an extent from the British rule as the Hindus. More ready than the agriculturists to avail themselves of the opportunities now offered for the education of their children, they have obtained a very large share of the appointments under Government in most Departments.

Khatris.

Khatris, who number about 34,000, make up 66 per cent of the Hindu population. They are the most valuable element in the Hindu population. The most versatile of all the Hindus and with plenty of spirit they turn their hand to anything except agriculture; much of the trade of the District is in their hands and many of them are in Government employment. Several have risen to high rank in the army, while in civil appointments they provide some of the best public servants we have. In Tallagang the Chháchhi Sardárs Mehr Singh, etc., whose ancestors held the tract under the Sikhs, are large Jagirdars, but reside almost always in the Gujrát District, and have really little to do with Tallagang. The only other prominent family is that of the Johars of Tallagang, of whom Lála Amír Chand and Mangal Sen, Extra Assistant Commissioners, are the present heads. The family is not an old one, at least not in its present rank, which it owes to the high offices to which its members have attained. In Pindigheb, Rámji Mal, Sufedposh, Kasrán, Rám Chand, Nára and Rám Diyál, Meanwala, own

much land; Amir Chand of Kasrán is an Inspector of Police; Sant Singh, of the same village, is a Sub-Inspector of Police, and Gopi Chand of Dondi is a Tahsildar; Sardar Hukm Singh and Sardar Amir Singh, of Pindigheb, are pensioned Risaldars. In Fatteh Jang the Chakri family headed by Amrik Singh, Saddhu Singh and Raja Singh, sons of Gulab Singh, have acquired a great deal of land in the Sil Soán. The Chhachhi family of Rawalpindi have large jagirs in Murat village and the vicinity.

Aroras.

Aroras number a little over twelve thousand, and are found in all tahsils but especially in Attock. Very few are Sikhs even in name. They are below the other Hindus in the social scale, and confine themselves to trading and money-lending. They have the reputation of being more grasping and unscrupulous money-lenders than the Khatris, and are in consequence more disliked and despised. Ramji Sháh of Pindigheb and Parma Nand of Bahtra have acquired a good deal of land.

Brahmans.

Brahmans, who number only a little over two thousand, are found in all tahsils but especially in Attock and Pindigheb. They own one village in Tallagang, one village in Attock, a share of a single village in the Fatteh Jang Sil Soán, and a few plots of land in Pindigheb Tahsil, but with these exceptions are not agriculturists. Everywhere they go in for money-lending. Misr Balmokand, Tahsildar, Attock, is the chief Brahman of Fatteh Jang, and enjoys a jagir of Rs. 52 in village Fatteh Jang.

Muhials

The only other prominent Hindu caste in the District is the Muhials. In the whole Province they number only about eleven thousand, and about ten per cent of them are in this District. Their principal habitat is the Jhelum District, and in consequence they are more numerous in the southern tahsil of this District than north of the Kala Chitta. But they inhabit no well-defined tract, living in scattered villages throughout the lower tahsil. Their own account of themselves, supplied by Sardar Sant Singh, Extra Assistant Settlement Officer, is as follows:—

Among Brahmans Muhials require special notice. They are distributed in almost all the principal towns and villages in the District, and amount to a good number. They are looked upon with peculiar respect. By origin they are a branch of the Sarsut Brahmans, but their ancestors before the time of Mahabharatha renounced the priestly office, and devoted themselves to administration and military service, and began to cultivate land. Many of them are hereditary owners of land.

They are divided into seven clans, Datt, Vaid, Bálí, Chhibbar, Mohan, Lau and Bhimwal, which are descended from seven Reshís. Drona Charj, the military tutor of the Pandavs, was an elder of the Datt clan.

The Muhials eat together and intermarry without scruple, but they look down on other Brahmans, and will not eat or intermarry with them; occasionally a Muhial takes to wife the daughter of a respectable Brahman, but the offspring is looked down upon, while a Muhial who gives his daughter in marriage to a Brahman, is punished by exclusion from the caste.

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They are a fine looking, intelligent race, remarkable for their loyalty, pluck, enterprize, devotion to duty and military spirit; they principally employ themselves as agriculturists, and eagerly take military service. They make fine soldiers, and rise to respectable positions in the Civil Department, but they are essentially a military race.

They specially reprobate three things—the taking of charity, the handling of scales (Bania's work), and living a life of laziness. They employ the titles of Bakhshi, Mehta, Raizada and Dewan.

A somewhat fuller account will be found in the Jhelum Gazetteer. Numerically and as agriculturists of this District unimportant, they are a stirring and enterprizing race, and frequently rise to prominence in the civil or military service of Government. They admit Brahman origin, but strongly object to being classed with that caste or being addressed by Brahman titles. They are notorious for the way in which they hang together, one caste brother being always ready to assist another. The leaders of the caste are endeavouring to develop a spirit of unity between the various clans by encouraging intermarriage and by editing a caste newspaper. With European officers they are generally popular. Mehta Chandrás of Basál in Pindigheb is a prominent Muhial owning much land.

Artisans and menials.

The table at page 66 gives the chief artisan and menial castes in order of numerical importance. Social importance depends on the materials handled and the habits of the caste. The two tests are not always distinct, but the higher castes take rank according to the nature of the employment, and the lower castes partly according to the nature of the food eaten. The metal and wood workers rank above the workers in clay. Workers in gold and silver rank highest of all. The Lohar ranks slightly above the Tarkhan, when any distinction is made. Workers in leather come lower still. The Mirasis rank low, because they eat any one's leavings. Lowest of all are the scavengers. Nearly all the agricultural menials receive in payment a share of the produce, others are paid by piece-work.

Sunáras.

The Sunáras or Zargars are the workers in gold and silver. They are chiefly found in the towns and larger villages, and are equally distributed between the four tahsils, though their numbers are nowhere large. They are mostly Hindus, though a very few are Sikhs. Many of them advance money at interest on the security of ornaments. Though they have the same reputation for dishonesty as elsewhere, they are socially the highest of the artisans.

Lohars and Tarkhans.

The Lohars are the blacksmiths and workers in iron. The Tarkhans do all the carpentry work, making agricultural implements, and the woodwork of wells, etc. They are also the bricklayers of wells and of buildings of burnt brick. Both are Musalmans, and both are everywhere regular agricultural menials receiving customary payments in kind. The two castes intermarry. In Tallagang and Pindigheb blacksmith's and carpenter's work is usually done by the same man, and there is not the same clear

distinction between Lohar and Tarkhan as elsewhere. The Lohar ranks slightly higher in the social scale, and in consequence in these two tahsils the numbers of artisans who have returned themselves as Tarkhan are very small. Generally all menial castes are Muhammadan.

Kumhars.

The Kumhars are the potters, make bricks and clay vessels, and receive a customary share of the produce for furnishing the pots for well wheels and the earthenware for domestic use. They rank low socially because they burn all kinds of refuse in their kilns, and because they keep donkeys.

Juláhas.

Juláhas, who are commonly called Páolis, are found in all tahsils. They are weavers, and are paid by the piece. The same trade is followed by the Kashmiris, who are found chiefly in Attock Tahsil, and to some extent in Fatteh Jang. Whatever connection the Kashmiri may have or acquire with the land, sooner or later he takes to his hereditary occupation at the loom. Weavers are an ill-conditioned turbulent class.

Náis.

The Nái is paid in kind in the villages and has curious functions. He is the barber, the leech and the go-between. He performs circumcisions, and is the recognized messenger on all occasions of domestic occurrences. He takes a prominent part in arranging marriages and in the actual ceremonies, and carries tidings of births and deaths. On these special occasions he is addressed as Rája. The Nái, with his intimate acquaintance with each household, is the village gossip. Still his social position is low.

Telis.

The Teli is the oil-presser and is found in the villages, taramira being everywhere grown. In towns the Kasáís or butchers, a trade guild rather than a tribe, are his relations.

Jhinwars.

Jhinwars, whose primary occupation is water-carrying, are not found in Tallagang. The people themselves do their own water-carrying, and the Jhinwars bake, parch corn, and take care of the village *hummám*, where there is one, at which the people wash before saying their prayers. His wife is often a midwife or wet nurse.

Malláhs.

The Malláhs are boatmen on the river, and sometimes also fish.

Dhobís.

The Dhobís are washermen. They deal with dirty clothes, and so are an impure caste. They too keep donkeys. To this class generally belong the Líláris, or dyers, and the Darzís or tailors.

Mírásís.

The Mírásís are the bards, musicians, genealogists and buffoons. They rank above Mochis and Musallis alone. They are called in to amuse the people at marriages, and their services are in request at all domestic functions.

Mochis.

The Mochis are the workers in leather. They tan skins and make shoes and other leather work. They are looked down upon because they handle hides.

Musallis.

The Musallis are the lowest of all the menials. They were all returned as Chuhras at the census of 1891, but there are in reality no Chuhras in the District. The Musallis are the Muhammadan scavengers. They are converted Chuhras. Besides scavenging they make baskets and winnowing trays and work in raw hide. They also assist in harvesting, and receive customary dues. Here, as elsewhere, conversion to Islam has somewhat raised the status of the sweeper. He no longer eats carrion or food forbidden by Muhammadan law.

Tribal organization.

The foregoing account of the various tribes should have made it clear that there is no single rule of tribal organization. To dispose of the castes as distinguished from the tribes, it is necessary to say only that the Hindus and the artisans and menials have no large joint communities but are scattered over the District, and are held together only by the rules of intermarriage. The agricultural tribes are of two classes. The aristocratic tribes, such as Jodhras, Ghebas, etc., are a collection of inter-related families. Each family has its chief or chiefs, among whom, although all are at strife, one is generally recognized as the head of the whole family. Similarly the families, whatever the bonds may be, are ranged in a well recognized order of seniority, the head of the senior family being the head of the whole tribe. This arrangement is complicated by differences in prosperity and personal force of character, but the position of the senior member of the senior family is always recognized. The other tribes are constituted by a real or fictitious relationship of common agnatic descent. They are broken up into septs and clans of varying social importance, but in general, apart from wealth and ability, each member of the tribe is as good as another. It is no part of the tribal organization that any family should overtop the rest of the tribe or clan, and no actual authority is recognized by the tribe as vested in any of the chief men. Remove the big Awan families and the tribal organization would be little affected. Uproot the big Johdra families and the tribe would wither away. The Khattars are intermediate between these two classes, but partake more of the character of the former than of the latter. Historically, the effect of this distinction between tribes has been very marked. The tribes constituted by families settled as dominant non-cultivating seigneurs. The clan-tribes came to the District as colonists and drove out the previous occupants. The former tribes had an organization that forbade the admission of strangers. The doors of the latter were ever open. Even Awans and Gujars have probably an element of heterogeneity in their composition. The débris of older tribes and wandering excommunicated men cannot all have found their way into the conglomeration called Jats, so

small a body in this District. They must have entered one or other of the tribes, who did not test too severely the claims of an application to membership of the tribe. When the question was whether a stranger was a member of the family or not, there can have been little hesitation in deciding, but in the case of a clan or a sept it must have been easier to assert than to disprove a right of inclusion. All the tribes are very much more particular about the rank of the tribe to which they give their daughters, than about the rank of those from whom they take their own wives. The custom throughout is for each tribe to give its daughters only to those whom it looks upon as of superior or at least of equal rank, but it will generally take a wife from a tribe which it holds to be slightly inferior to itself in the social scale, but of the same class. The marriage relations are roughly as follows:—

Sayyads do not give their daughters in marriage to any but Sayyads, and only take women in marriage from tribes of the highest rank, Gakkhars, Janjuás, and so on; Koreshís also only give their daughters to men of their own tribe. Moghals give their daughters to men of their own tribe, to Johdrás, Chohāns and Awáns. Patháns give their daughters only to Patháns or Sayyads. Awáns give their daughters to men of their own tribe, to Sayyads or to Patháns, seldom to Khattars. Khattars give their daughters outside their own tribe, only to Patháns, Sayyads or Gakkhars. Alpiáls give their daughters to Ghebás, Awáns, and Sensrál Rájpúts. Ghebas give their daughters, outside their own tribe, to Khattars, Alpials, Sayyáds and Sensráls. Johdras and Chohāns only give their daughters, outside their own circle, to Khattars, Moghals and Awáns.

Paráchás only give their daughters to Sayyads and Parachas.

Gakkhars only give their daughters to Sayyads outside their own tribe. Gujars only give their daughters to Sayyads; but Gujars, of all the various *gots* or branches, intermarry with each other.

Khatris, Brahmans and Aroras marry only within the caste with the usual *got* restrictions. All the Muhial clans intermarry.

At wedding feasts and at funerals, all neighbours and friends, without distinction of class or religion, assemble, more particlurly at funerals. Personal friendships are formed also quite independently of social status or of religion, and friendship is a virtue held in high esteem in this District. Musalmáns do not go to the funeral pyre with Hindús, but on all other occasions the people of this District, Hindú and Musalmán, mix very freely together. Among Musalmáns all are allowed to eat together, with the exception that others will not eat with sweepers.

The Hindús, as elsewhere, have much more stringent rules on this point, but none of them are peculiar to this District.

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Descent of Jagirs Act.

The provisions of the Descent of Jagirs Act are being applied to the large jagirs in the District. Notifications applying the rule of primogeniture to the jagirs of the Khan of Mahkad and Malik Gulam Mahomed of Pindigheb have issued. Dost Mahomed of Bahtar, Baba Sher Singh of Shahr Rai Chiragh, Tahsil Fatteh Jang, and Sardar Mehr Singh, Dhadumbar Tahsil Tallagang, have accepted the conditions. It is proposed to apply the Act to the Kot estate which is now under the Court of Wards. Ahmed Khan of Chakri and the younger branches of the Dhadumbar family have objected to being brought under the Act.

Malik Muhammad Amir of Shamsabad, in Attock Tahsil, accepted the principle of primogeniture before the new District was formed.

Religions.

The population is mainly Muhammadan, including the original land-owning classes, and almost all the artisans and village menials. The Hindu and Sikh religions are confined almost entirely to the money-lending and trading classes, and their priests and to Government troops and servants.

Muhammadans amount to 90 per cent of the total population. Hindus and Sikhs account for 8 per cent and 1·5 per cent respectively. Christians are only ·14 per cent of the whole, and other religions are practically unrepresented. The urban population which is of little importance compared with the rural, as the total number is small, is more equally divided between Muhammadans and Hindus. Hindus form 32 per cent of the urban population, Muhammadans 62·66 per cent, Sikhs 2·7 per cent and Christians 2·6 per cent.

Muhammadans.

Islam is the principal religion. With the exception of a few scattered Shias all its followers are Sunnis. They practice circumcision, repeat the *kalima* or profession of faith, marry by *nikáh*, bury their dead, and regard Mecca and Medina as holy places of pilgrimage. The pious pray regularly in the mosques, keep the fast in Ramzán, and give away part of their income in charity, but the ordinary agriculturist is very lax in these observances and is ignorant of the tenets and principles of the religion which he professes. The people are, however, thoroughly convinced of the truth of their own creed, though they are by no means intolerant or fanatical. There is nothing peculiar about the Muhammadanism of the district. There are the usual beliefs in recording angels and in an after life where the good will be rewarded in a Paradise of Houris, and the bad punished in a Hell of everlasting fire. But belief has little effect on conduct, of which the social sanction is the most powerful regulator. Falsehood and perjury are not regarded as very sinful. An oath on the Koran made at a holy shrine is generally respected, but there are some classes of the population to be bound only by the " oath of divorce, " the most binding oath of all. By taking this oath, the witness sometimes

incurs the displeasure of the brotherhood, and it should never, therefore, be imposed on those unwilling to submit to it; it is not often volunteered. The Shias in popular opinion are distinguished from the Sunnis only by differences in ritual. Thus, the Sunni prays with his hands folded on the waist, the Shia with his hands by his sides. Shias are said to be chiefly Sayyads. They are numerous in Tallagang, Pátwáh and Dhaular in Tallagang. A few Mochis in Pindigheb are Shias, and a few are to be found in the Narrara ilaka and in Makhad. There are also one or two in Attock tahsil. Apart from differences in ritual the chief difference from the Sunnis is that the Shias observe the first ten days of the Muharram as a fast in commemoration of the martyrdom of Ali and his sons, Hasan and Hussain, and make processions with *tázias* resembling the tombs of the latter, with loud lamentation and mourning.

Hindus.

There are few peculiar Hindu sects to be found in the district and there are no special peculiarities of religious belief to be noted. Hindu worship centres round incarnations of Vishnu, chiefly Rama and Krishna. The educated explain away the idol-worship in various ways. The uneducated are content to seek no explanation. The Hinduism now in the district is of a very lax form. Veneration for the cow is still very strong, and the shades of ancestors are still propitiated for three generations by expiators' offerings and gifts to the Brahmans. But the belief in the efficacy of gifts to Brahmans is gradually weakening, and recourse is now had to medical treatment in cases where in former days the Brahman would have been called in to recite *mantras*.

Sikhs.

Sikhism, as said before, has made very litle progress in the district, very much less than in the adjoining and not very dissimilar district of Rawalpindi. It is little to be distinguished from the lax Hinduism of the district. The prominent feature of the ritual is the worship of the sacred book, the Granth Sahib. The priest is the Bhai of the Dharmsal, who need not be a Brahman, but takes offerings. The Sikhs of the district, so far as they have a spiritual head, look up to Bedi Gurbakhsh Singh of Kallar, who is the head of all Sikhs in the upper Sind Sagar Doab. The popular opinion is that Sikhism is adopted for economical reasons, the expenses at births, marriages and deaths being less than those incurred by Hindus. The following account of the Kukás is taken from the Gazetteer of Rawalpindi District (1897) and refers to the Attock tahsil :—

The Kúká sect.

The Kúká sect owe their origin to a Sikh who resided in Hazro in the Attock tahsil, in the time of Ranjít Singh. One Dal Singh, Arora, of Hazro, had two sons, Bálik Singh and Mana Singh. There was at that time a Sikh fort in Pírdád, a village adjoining Hazro, and a Sikh official had his office in Hazro. The garrison of the fort and all the officials connected with Bánki Rái, the Sikh Civil Officer in charge at Hazro, got their supplies

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from Dal Singh's sons. Bhái Bálik Singh professed the Sikh religion, obtained the name of a wise and holy man, and became a teacher among the people. Many of the Sikh garrison of Pírdád became his disciples, and others from the neighbourhood also began to look up to him as their spiritual adviser and head. This garrison was moved down southwards, including in it one Rám Singh, belonging to a village in Ludhiána. He, too, was a disciple of Bálik Singh, and spread his doctrines wherever he went. After the Sikh power passed away Bálik Singh continued to teach at Hazro and built a place of reception there, where his disciples and friends assembled to hear him teach. He died at the age of 70 in 1863 and was buried at Hazro. Rám Singh returned to Hazro two years before the death of Bálik Singh and obtained his permission to instruct the people in his doctrines. Many joined the sect, and in time the Kúká outbreak took place iu 1873. Rám Singh was arrested and sent to Rangoon. Bálik Singh left no son; his brother, Mana Singh, left two, of whom one, Khair Singh has succeeded to Bálik Singh's position as apostle of the sect, of which it is now characteristic that its disciples are strictly enforced not to reveal the tenor of its teaching. The sect is not called Kúkás in Ráwalpindi, but Jagrási. In Siálkot they call themselves Nám-dhári: further south round Amritsar they have got the name of Kúkás, from their habit of reading their sacred books with great vehemence, wagging their heads the while, until they became unconscious of their actions, when they commence shouting *kú kú kú*, whence the name Kúká. This sect recognise Guru Nának as the chief Sikh priest; further south the Kúkás are all followers of Guru Govind Singh only. For an account of the Kúká Branch the Final Report of the Ludhiana district at pages 56 and 57 may he consulted. The Jagrasis do not attempt to conceal that they belong to the sect, as the Settlement Officer of Ludhiana states is the case with the Kùkás.

Mosques and temples.

Every, village has it mosque. In the large villages, specially if rent by faction, there may be two or more. Often the mosque is little more than an ordinary mud hut, distingnished by a couple of pinnacles or a pair of horns. Generally it is more pretentious, having a carved wooden door on front, a raised platform covered with the scented *khavrí* grass, a *hummám* for heating water used in the ablutions before prayers, and a low mud wall encircling the courtyard. In the towns and large villages the building is often of masonry and is ornamented with stucco and painted scroll work.

Thúkurdwúras, *shiválwas* and *dharamsalas* are found only in the towns and in the large villages where there is a Hindu or Sikh community.

Priests.

The mosque attendant is the Imám or Moulvi. His duties are to keep the place in order, to conduct services at marriages and funerals, and to keep the mosque school where a few boys are taught to repeat the *Korán* by rote. He is usually a

superior head of village menials. In some villages he receives a share of the grain at harvest; in others he holds a piece of land from the cultivated village waste or rent-free tenure. Few are men of any learning, and their influence over the people is small.

Holy men.

To a very large extent the religious emotions of the people centre round the numerous holy men and saints or their progeny. Some of these holy men have a real claim to the respect of the people. They are in general Sufis, and live a life of austerity and respectability. They are looked up to with the greatest reverence by the whole population, and are generally credited with miraculous powers. Their esoteric doctrines are communicated only to the circle of their closest pupils. To the zemindar they are pattern of morality and mediators to whom special power and influence have been vouchsafed. The educated look on them as men to whom mysteries hidden from others have been revealed. When a saint who by austerity or the performance of a miracle has obtained a good report dies, his reputation usually descends to his shrine or to his descendants. The latter are revered as Miáns or Pírs. They have a hereditary sanctity, quite apart from the saintliness, or otherwise of their own conduct. Many of them have a wide circle of *muríds* or disciples who delight to honour them and offer gifts. A Pír with a wide clientele will usually make tours, receive the homage and hospitality of his Muríds, and collect offerings. The annual tour of the Pír of Makhad is always made in some state. His advent is signalised by a remarkable demonstration and his every step is followed by a respectful company, which sometimes includes the proudest landowners in the District. In general, the land held by any of these holy men is freed from liability to pay revenue, the assessment being borne by the villagers who distribute it over their own holdings. It is not necessary that these holy men should belong to a holy caste, but descent usually confers on Sayyads and Koreshis a similar sort of reputation. One of the most influential Pírs in the district is a Khokhar. Among Sikhs similar offerings are made to Bedís and Bháís, who come round periodically to collect them. It is not unusual to find the Muhammadan *zamíndárs* paying respect to Hindú and Sikh holy men. Many of the holy men have, at their head-quarters, colleges of monks (*Khalífas*) who are maintained from the revenues of the shrine or the offerings to the Pír.

The principal Pírs of the district are Wiláyat Shah and other Sayyads of Danda Sháh Biláwal, in Tallagang; Pír Gulám Abbás of Makhad, Pír Phul Bádsháh and Pír Karm Husain of Dhulian, Pír Farmán Sháh, of Ziárat, and Fakir Ahmed of Maira in Pindigheb. The shrine of Bhai Than Singh at Kot in Fatteh Jang and the shrine at Jasuari in Attock Tahsil are both well-known.

Christianity.

Practically the only Christians are the Europeans in Campbellpur and Attock. There are also a few native Christians in

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Superstitions.

Government service. There is as yet no Christian mission in the district.

The people, Muhammadans as well as Hindús, but especially the latter, are intensely superstitious. The superstitions are often apparently inconsistent, nor do the same superstitions prevail in all parts of the District. These beliefs are exceedingly numerous and complex, and a complete account of them cannot be given.

Every one believes in *jins*, and with the *zamíndárs* and the ignorant Hindús the belief is a very real one. The harvest-heap of grain ready on the threshing floor for measurement and division, is surrounded by elaborate precautions to keep off the *jins*. A paper bearing the name of God is placed in the heap, and some iron implement is kept near. A line is drawn round the grain, within which no one may come with shod feet, and women not at all (according to some because they are considered unclean, but others say because they attract the *jins*). Iron is thought to keep off evil spirits, a belief which Hindús say is derived from their religious books; thus for some days before and after a marriage, both bride and bridegroom keep near them or carry about a knife or other iron implement. The Musalmans have a similar custom at child-birth also. There are many tales of small children left alone in the house, or going out alone to the fields, dying owing to the influence of *jins*. Small whirlwinds or "dust devils" are thought to denote the presence of malignant spirits, and are therefore feared. No one will willingly pass by a graveyard or burning ground alone at nights. Those who have occasion to sleep alone in a graveyard, or in the enclosure of a *khángáh* or shrine, must sleep on the ground. Instances are given of sceptical persons sleeping in such places on beds, and finding them overturned by spirits in the night. Lucky days, depending usually on the state of the moon, are recognized here as elsewhere. Some *zamíndárs* will not commence ploughing on Sundays or Tuesdays, others consider Tuesday the best day, because Adam began to plough on that day; they also consider Tuesdays and Saturdays the luckiest days for beginning legal proceedings of any kind. It is believed unlucky to start on a journey northwards on Tuesday or Wednesday. Mondays and Fridays are lucky days to commence such a journey. It is bad to start southwards on Thursday, good on Wednesday. *Mangal Budh na jáeye pahár, jiti bázi áeye hàr.*" (Do not go northwards on Tuesday or Wednesday, for if you succeed it will still end in loss) is the popular proverb on this subject.

You should not go east on Monday or Saturday, but should choose Sunday or Tuesday, if possible; for journeys westward Sundays and Thursdays are bad, Mondays and Saturdays are good. On starting on a journey it is fortunate to meet some one carrying water, to meet a sweeper, a dog, a woman with a child, a Khatrí, a maiden, all kinds of flowers, a *máli* (gardener), a donkey, a Rája, a horseman, a vessel of milk, curds, *ghí*, vegetables, sugar or a drum (*nakára*).

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It is considered unlucky to meet a Brahman, a Mullán, a man with a bare head, any person weeping, smoking, fire, a crow flying towards one, a widowed woman, a broken vessel in a person's hand, a cat, a gardener with an empty basket, a goat or a cow or any black animal, a snake or an empty *gharrah* carried along. To hear the sound of crying or to hear a person sneeze while on a journey is most unfortunate. This last will almost always occasion at least a delay in a journey. It is not easy to give any satisfactory reason for these superstitions: meeting water at starting is considered lucky, because water is much prized; sweepers are humble, honest and useful; dogs are faithful, and so on. Brahmans are seldom seen without their asking for something; Mulláns are unlucky to meet for much the same reason.

It is considered very unlucky for a cow to calve in Bhádon, for a mare to drop a foal in Sáwan, a buffalo to calve in Mágh, a cat to have kittens in Jeth, a donkey to have a foal in Sáwan, a camel to have young in Baisákh, a goat to have a kid in Poh, or a dog to have pups in Chet. If any of these things happens in any household, the Brahman or Mullán is at once consulted as to what should be done, and the prescriptions always include a fee to the person consulted, in some shape or other. To hear a horse neighing in the daytime is unlucky. Hindús greatly dislike to have a child born in Katik.

Superstitions connected with agriculture are numberless. Some of them no doubt have a practical foundation, most of them have not. Thus, camel bones or a dead snake burnt at the side of a cotton field are supposed to preserve the plants from blight.

The Hindús have many beliefs founded on astrology, which it is not necessary to detail. The supposed unluckiness of children born at noon, may perhaps have some connection with them. A child of one sex born after three children of the opposite sex (*trikhal*), portends misfortune to the parents, especially the parent of the opposite sex; but evil can be avoided by certain elaborate ceremonies; this is a Hindú belief. Amongst Hindús, the maternal uncle and his sister's son are supposed to be inimical; they must not sit together during a thunderstorm, and there are various other usages due to the same idea.

Charms and spells to ward off evil from, and to cure diseases of, men and cattle are commonly believed in, and are highly esteemed by both Muhammadans and Hindús. Healing powers are supposed to reside in the members of various families. The efficacy for all sorts of purposes of the small shrines (*khàngàh*) which dot the country, generally tombs of holy men, is firmly believed in. When a villager desires anything very strongly he makes a vow (*mannat*) to present something at one of these shrines, commonly a rag tied to a tree above the tomb; or the offering has some reference to the wish that has been granted; one shrine is specially good for curing the bites of mad dogs; another gives the suppliant

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success in litigation; another is good for tooth-ache, and so on through a long list, though in general the shrines have no speciality of this kind, but are supposed to help those who come to them in whatever their need may be. The shrines are great tree preservers, as no one dares to cut down a tree or even carry away fallen wood from a *faqir's* grave. Living *faqírs* drive a brisk trade in charms and amulets to serve all sorts of purposes. There is a spring where barren women can become fruitful near Sháh Muhammdawálí, which was miraculously revealed to a pious boy, who was too good to live long afterwards. Pilgrims visit this from as far away as Kohát. Miracles have not ceased here as yet, and can even be performed to order, as one *faqír* offered to perform one for the special benefit of an officer employed in the district. Legends about saints and *faqírs* are numerous, but generally of the most commonplace and uninteresting character.

Only the Pathans of the district appear to care for none of these things.

Invocation of Rain.

When rain fails for any considerable period, and the people are threatened with drought or famine, they proceed to invoke rain in some of the following ways:—

I. They take grain, collecting a little from each house and place it in a vessel of water and boil it, and then take it to a *khankah* or *masjid*, and after prayer divide it among all present, and in Attock they also pass round confectionery and sweet breads.

II. Men and women collect together and repair and clean up the *masjid* and pray there.

III. A boy is taken, and his face blackened and a stick put into his hand. He then collects all the other children, and they go round begging from every house and calling out—

Aulia ! Maulia ! Mính barsa,
Sádi kothi dáne pa;
Chiriye de múnh páni pa;

and whatever grain they collect they boil and divide.

IV. Men, women, boys and girls collect together and fill a *gharrah* with water, mud, cow-dung and similar things, and, choosing out the most quarrelsome person in the village, they fling this *gharrah* into his or her house; upon this a violent quarrel immediately takes place. The idea being that the Almighty, seeing to what straits they are reduced, will send down rain.

V. Men and women fill *gharrahs* with water and take them and pour them over some holy person and bathe and wash him telling him to pray for rain.

VI. Boys and girls are collected together: two dolls are dressed up as a man and a woman, and then they all say, *Guddi*

gudda margia : and they then burn them with small sticks and lament their death saying :—

Guddi gudda sária
Was mián kalia;
Guddi gudda pitta,
Was mián chittia;
Kále patthar chitte ror,
Baddal pia giranwen kol.

Which may be translated thus—

Dolls we burnt to ashes down,
Black cloud ! soon come down ;
Dolls well we bewailed,
Do, white rain ! set in ;
Stones black and pebbles white,
Cloud (rain) fell near village site.

This custom is a Hindú one.

VII. Several women of one village go to another and seize goats from their flocks. The women of that village come and fight with those taking the goats. If they do not succeed in rescuing the goats, they, too, take goats from another village. The stolen goats are then killed and eaten. This is supposed to show that the women are starving, and thus to appeal to the pity of the deity.

VIII. The common people get some person of high rank who has never put his hand to the plough to come and plough some land. It is said that on one occasion a former Deputy Commissioner was induced to put his hand to the plough, an action which was speedily followed by the fall of the desired rain !

Such a state of affairs is supposed to be indicated by this, that the deity must be moved thereby to send rain. Numerous instances are quoted in which such a proceeding on the part of men of high rank and station was effectual in bringing down rain from heaven.

IX. In Sikh villages, the Granthi reads prayers night and day until he has gone through the whole Then confectionery is divided and presents are made to the readers, and a valuable cloth is placed on the Granth book.

X. The Mulláns and others go to the *masjid* and call the *báng* seven times at each corner, and also go round the village calling the *báng*. Crowds of villagers assemble and repeat prayers. This is known as *zári*. This is common in tahsíl Attock. Religious books are read and presents made to priests and shrines A ploughshare's weight of grain is a common gift at such a time.

Ecclesiastical Administration.

There is no chaplain permanently attached to the district. Campbellpur is visited by the chaplain (Abbottabad). Services

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are also held in a barrack-room when a Roman Catholic chaplain visits the district in winter.

The American United Presbyterian Mission have purchased three residential sites in the Campbellbpur Civil Bazaar, but building has not yet begun.

Occupations.

The occupations of the people are given in Table XVII of the statistical volume, but that statement is somewhat indigestible. It will be sufficient to note briefly how the population is divided between the main heads:—

Agricultural ...	... 66	per cent. of the population.	
Industrial ...	... 19	"	"
Commercial and professional	... 6	"	"
Administration ...	... 1	"	"
Independent ...	... 3	"	"
Personal Service ...	... 4	"	"
Others	... 1	"	"

The rural population is essentially agricultural or dependent upon the results of agriculture. Besides the agriculturists pure and simple, there is a very large body of the population which depends for its livelihood upon the yield of agricultural occupations. There are very few tribes which do not till their own lands. The proportion of the agricultural community which is above ploughing and sowing is very small, and even among Jodhras and Ghebas, hard times and extravagance have driven the poorer owners to tilling their own lands. In the humbler tribes women work in the fields, assisting in most agricultural occupations except ploughing. Like the men of the tribe the Malhár women are the most industrious and do most field work.

Daily life. Occupations of men.

The men of the agricultural population are engaged in one or other of the operations of husbandry all the year. The daily round depend very much on the kind of holding cultivated. On lands which depend solely on the rainfall, and these make up almost the whole district, the peasant has periods of feverish activity, followed by long stretches of leisure when the agriculturist finds it difficult to employ his time. When rain falls every available plough is taken out, and the fields are alive with men and oxen taking advantage of the welcome moisture. Except in the coldest weather work begins at day-break, and goes on as long as the bullocks can work. In the hot weather the cultivator is out before daybreak and continues working till the heat of the sun becomes unbearable. He then ties up his bullocks under the shade of a tree and himself indulges in a siesta till it is cool enough to begin work again. In the cold weather work begins about seven, the midday siesta is not indulged in, and the peasant retires to rest about eight. At harvest time the *zamíndár* labours all day long cutting and gathering in the crop. When neither

ploughing nor harvesting is going on, there is little to be done. Especially in December and January there is little for the owner of irrigated land to do. On wells the labour is constant. In the hot season the peasant gets up about 2 A.M., gives a feed to his bullocks, and goes to sleep again till just before dawn; when he gets up, has a smoke, says his prayers, if given that way, and goes off with his bullocks to work his well or plough his fields. If it is his turn to get water from the well he works his bullocks perhaps all day or all night, in relays, until his turn is at an end: if not, he unyokes them about midday, and turns them loose to graze while he himself has a siesta. When it begins to get cool in the afternoon he does light work in the fields, weeding the crops or clearing the irrigation channels. At sunset he goes home, ties up his bullocks, milks the cows, gets his supper, has a smoke and a chat with his fellows at the village gathering place (*dáera*), and goes to bed about 10 P.M. In the cold weather the day is shorter, work is not begun before seven, the midday siesta is cut out, and the *zamíndár* goes to bed earlier.

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When sowings are going on the cultivator will be out all day. Malhars work on their irrigated lands chiefly with small hand hoes all day. The women of this tribe also do much work of this kind. At all times of the year the cultivator has to feed and water his cattle and to prepare oil cake and sift chaffed straws for them. On this work all the males of the household from five to six years of age and upwards, give their aid.

Jodhras, Ghebas and some others of the aristocratic tribes, do not cultivate themselves, and live a life of almost complete idleness unless they have taken service in Government employ.

Occupations of women.

The real occupations in life of a woman begin when she marries, at the age of from 12 to 15. When she first goes to her husband's house she is generally treated as a guest and excused from all labour for a longer or shorter period according to her husband's status. This period of ease lasts for from ten days to a year. When it is over, there begins a round of drudgery which lasts as long as she has strength to endure it. Early in the morning before service, she rises, makes the butter, and sweeps out the house and fetches the water, from two to five *gharas* full. Sometimes the well or watercourse is close by, and sometimes far away. When the women are in *parda* as in the Chhachh, they bring the water before daybreak. Later, she grinds the corn for the day's food, collects the cow-dung, prepares her husband's morning meal, and if he is out in the fields, takes it to him with butter-milk. On her return she eats her own breakfast, spins the clothes of the family, grinds more corn, and does laundry work. Then water has to be fetched a second time, and dinner cooked and served to her husband. Her own dinner, and a turn at the spinning wheel, finish the day. In addition, there are the care of the children, and other domestic duties. She also helps with the business of the farm. If cotton

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is grown she does the picking (*chunái*). In harvest time she watches the ripening crops to keep off the birds, and also gleans behind the reapers. Among the lower classes, she carries manure to the fields, weeds the crops, and makes herself generally useful. From time to time she has to plaster the walls and floors, and repair the fireplaces, and so on. The rest of her time is taken up in going to and from wedding or funeral feasts and ceremonies, saying her prayers and other miscellaneous matters. The women of the lower cultivating classes assist the men in every branch of their work, except ploughing. Malliarnis in particular have many cares other than domestic. Besides weeding and other agricultural duties they spend much of their time selling their garden produce in the towns and large villages. Generally, the higher the tribe comes in the social scale the less the women help the men in outdoor work. There are few *pardanashin* women south of the Kala Chitta.

Divisions of time.

The day is divided by the Muhammadans and Hindús into the following portions:—

Musalmáns.	Hindús.	Corresponding English time.
Sargi	......	3 A.M.
Dhami or Suntán da vela ...	Amrit vela or Parbhát vela ...	3 A.M. to 4 A.M.
Fajr or Namáz vela... ...	Bara vela	About 5 A.M.
Kachchi roti vela	......	8 A.M.
Roti vela	Roti vela	10 A.M.
Dopahrán	Dopahrán	Noon.
Dhalle hue din		1 P.M.
Peshi	......	2 P.M.
Lohri Peshi	Laudhe vela or nadhe vela ... or	4 P.M.
Digar	Degchiàn vela	5 P.M.
Din andar báhar	......	Just before sunset.
Namáshan or Sham ...	Tarkálan vela	7 P.M.
Khuftán or Sota	Sota	8 to 10 P.M.
Adhi rát...	Adhi rát...	Midnight.

Manners.

The following from Mr. Wilson's Shahpur Gazetteer, is equally true of this district:—

"The rules of etiquette are not very well defined, and differ greatly from those in vogue in European countries. Women are not treated with such deference, and are ignored as much as possible out of doors. When a husband and a wife are walking together, she follows at a respectful distance behind. A woman

should not mention the name of her husband or of his agnates older than her by generation. Words denoting connection by marriage have become so commonly used as terms of abuse that they are not often used in their proper sense; and a man generally speaks of his father-in-law (*sauhra*) as his uncle (*chácha*). It is shameful for a man to go to his married daughter's house, or to take anything from her or her relations: on the other hand a son-in-law is an honoured guest in his father-in-law's house. When a married woman goes to visit her mother, it is proper for the women of the family, both on her arrival and departure, to make a great lamentation, and lift up the voice and weep.

"When friends meet, they join but do not shake hands, or each puts out his hands towards the other's knee: or if they are very great friends they embrace each other breast to breast, first on one side and then on the other. If a man meets a holy person (*pír*), he touches the latter's feet by way of salutation. Should acquaintances pass one another, one says *Salám alaikum* (peace be on thee), and the other replies *Wa alaikum ussalám* (and on thee be peace). They then enquire after each other's health, the usual question being 'Is it well?' (*khaire*), and the answer 'fairly' (*val*), or 'thanks (to God)' (*shukr*). When a visitor comes to the house he is saluted with a welcome (*ámi* or *jí áea*), and answers 'blessing be on thee' (*khair hovi*). The use of chairs and tables is becoming more common, but it is usual for a peasant when resting either to sit on his heels (*athrúha*), or to squat on the ground cross-legged (*patthallí*), or to sit on the ground with his arms round his knees, or with his *chádar* tied round his waist and knees (*goth*) to support his back.

"Some of their gestures are peculiar, although, as in Europe, a nod of the head means 'yes' or 'come,' and a shake of the head means 'denial.' Thus, a backward nod means 'enquiry,' a click with a toss of the head means 'no,' jerking the fingers inward means 'I do not know,' holding the palm inwards and shaking the head is a sign of prohibition, holding up the thumb (*thutth*) means 'contemptuous refusal', wagging the middle finger (*dhiri*) provokes a person to anger, and holding up the open palm is a great insult. In beckoning a person the hand is held up, palm outwards, and the fingers moved downwards and inwards."

The main food-staple is wheat, but this is often supplemented with *bájra*, which is generally eaten during a great part of the winter instead of wheat, and is rightly supposed to be very sustaining. In villages where there are many wells, maize becomes an important food-staple. Gram is eaten only by the poorest, and, except in the Jandál iláka of Pindigheb, it is not common to mix it with other grains or the food of the people. Rice, moth, and barley are all pleasant now and then for a change but are only fit to nourish women, children and horses. *Ság* or green stuffs furnished by Food.

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the green leaves of gram or mustard in season, supplement the *bájra* cakes. *Ghí* is a luxury not much indulged in. When it is made by *zamíndárs* it is usually for sale and not for home consumption. *Gúr* is also a luxury not easily obtained, except in the Chhachh iláka of Attock Tahsíl. Meat is eaten by all who can afford it, and milk is largely consumed at all times. Meat and sweetmeats (*halwá*), are essential on the occasion of the Ids, or when friends are gathered together to help in carrying out some heavy piece of embanking or other work: such gatherings are called *vangár*, and are not uncommon.

The regular meals of the ordinary agriculturist are two, one in the morning about 10 A.M., and the other at sunset, but often two light meals, consisting of the remnants of previous meals are taken.

At *kachchi roti vela*, *i.e.*, 8 A.M., a small meal of bread (*chapátis*)) cooked the night before, and left over from last night's meal, made of *bájra* or wheat, with butter-milk or salt and pepper, if *lasse* (butter-milk) cannot be got, may be taken. The first big meal of the day comes on at *roti vela*, 10 A.M.; a full meal of new baked cakes (*chapátis*) of *bájra* or wheat, with butter-milk. At *peshi vela*, or 2 P.M. or so, a piece of the bread left over from the morning meal is eaten with salt and pepper. At *namáshán* 7 P.M., the chief meal of the day, consisting of *bájra*, wheat or maize cakes with *dál* made of *mash*, *mung*, *moth* or *ság* (tárámíra or sarson) is eaten.

Among Mussalmans, meals are cooked at home in the cold weather, and at the village *tandúr* by the Jhinwar in the hot weather, but this custom, though very general, is not universal, and Jhinwars are not found in every village. The meals of Hindús are always cooked at home. The Jhinwar is paid by being allowed to retain a portion of the flour brought to him to be cooked. The men of the household eat first, and after them the women.

Dress.
Clothing of men.

The clothing of men varies slightly in different parts of the district. The *pagrí* is usually of large size, often twenty yards in length. Those of tahsíls Pindigheb and Fatteh Jang are often of most imposing dimensions. The greater the social importance of the wearer the bigger the *pagrí*. A sheet of cotton cloth, which is always of country make, is wrapped round the loins and reaches to the ankle, and is called *lang* or *majhla*. In many cases, especially among those who have any connection with official life, the *lang* gives place to the *páijámas*. The upper part of the body is clothed in a tunic or *kurta* of cotton cloth, which slips on over the head, and the neck opening is fastened with a small thread button on the left shoulder. The *kurta* is generally loose and wide and reaches nearly to the knees. Many of the younger men in parts of the Thal wear no *kurta* at all. The *chádar*, however, is universally worn. It is a sheet made of *Gárah*, a coarse white cotton

home-spun, about three yards in length and one and a half in width. It is worn as a cloak, wrapped shawlwise round the body. This is the hot weather dress. In the cold weather the *fargal* or *anga*, a sort of loose coat, wadded with cotton, and reaching nearly to the knee, is put on over the *kurta*, but often it does the duty of both. Sometimes, the only change made in the cold weather is to replace the *chádar* by a sheet of double-woven cotton called a *dohar*, or a soft blanket, usually made of sheep's wool, and called *loí*, is worn. Richer people prefer a light quilt called *dulái* to the *loí*. The shoes (*jutti*) are of the usual description. Sandals, *kherí* or *chaplí*, are worn in some parts of the Tallagang, Pindigheb and Fatteh Jang tahsíls and in the Khattar tract of Attock. Blue *pagrís* are common in Chhachh and Makhad, but blue cloth, which Colonel Cracroft describes as the common dress in these tracts, is not now often seen. The taste for European cloth has spread largely among the well-to-do and the extravagant, especially for long coats and for waistcoats, but it is still little used by the common folk. Men of position often wear a long *chogha* or coat with roomy sleeves, and a *dopata*, or shawl, worn plaid fashion across the shoulders.

Clothing of women.

The women's costume does not differ very materially from that of men. They wear loose, very full, trousers called *sutthan*. These are usually of coloured cotton cloth, with silk lines running through them. They contain much cloth, sometimes as many as twenty yards or more, and hang in innumerable folds ending in a tight band at the ankles. Women generally have a dress fair and a working fair, the latter lasting for years and finally consisting of an aggregate of patches of many different coloured cloths. *Kurtas* are worn universally, and consist of cotton cloth, usually finer than that used by the men, of home-spun, or purchased from the bazárs, usually coloured, but sometimes white. The *kurta* hangs loose over the band of the *sutthan*. Over all is thrown the *chádar* or *bhochan* a kind of shawl, worn over the head, and hanging down over the shoulders and body. It is usually about three yards in length, and may be of any colour. The women's shoes are of the usual type. The same dress is worn throughout the year, but the thickness of the material varies.

The *saldri* is a coloured cloth, usually blue or yellow, used on gala occasions, or on appearance in public, and is made of cotton mixed with yellow or red silk. These often give a gay and picturesque appearance to a group of women. They are much worn about Hasan Abdál and in the Attock Tahsíl, but are used throughout the district.

Hindu Clothing.

The chief difference among the Hindus is that they tie their turbans in another way, and that the shopkeeping classes in some parts of the district use the *dhoti* or loin-cloth. Also the *lang* is not worn. The women also dress their hair differently. The ordinary Muhammadan, of both sexes, can be distinguished at a

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glance from the ordinary Hindú, but the difference is one of general appearance more than of dress.

Ornaments.

Men wear few ornaments, though it was undoubtedly once the custom for them to carry a good deal of jewellery. A ring, *chháp*, a signet ring usually of silver, is the only common ornament for men. An amulet (*táwíz*) of some sort or other may be worn on the arm or the neck. Boys wear a necklace, *hassi*, a small ear-ring, *mundrán*, usually of silver, occasionally of gold, and a bracelet, *kara*, but these are discarded later in life. The practice of loading boys with jewellery is in decay. The women's ornaments are limited only by the want of money to buy more. The following are a few of the commonest. All are ugly, and many are heavy, and must cause the wearer a lot of inconvenience. They are not worn by widows.

Pazeb or anklet, usually of silver; *kara*, a bracelet, also usually of silver; *bangán* or *chúrián*, bangles of silver; *chháp*, an earring; *chhalla*, ring; *hasli*, necklet, usually of silver; *itti*, locket of gold or silver; *bahádarián*, large ear ornaments, usually of silver; *tavítri*, an ornament worn on the forehead; *koka*, or *nali* or *long*, nose-ornaments of silver or gold; *bolák*, a golden nose-ornament; *nath*, a nose-ring; *bhovatta*, a silver armlet, worn above the elbow; *chandkán*, an ear ornament of silver; *patri*, a thin ring, with a broad back; *har-hamel*, a necklace of coin, rupees or eight-anna pieces strung together; *tikka*, usually of gold, worn on the forehead; *dholna*, of silver or gold, an ornament worn like a locket; *chaunp-kali*, another neck ornament; *hauldili* or *dilrakhni*, a kind of charm of stone set in silver, worn round the neck, and sucked by the wearer; *tawíz*, usually of silver, a charm, a kind of philactery, worn on the arm, or more usually on the neck; and *jugni*, a small gold ornament, usually attached to a necklace.

Houses.

Throughout the district, the houses of the people consist of one or more rooms called *kothás* with a courtyard, called *vehra* or *sahn* in front.

The house itself is usually made of rough stones and mud cement. It is always one-storied and low in the roof, being not more than 10 or 12 feet high. It consists in general of one large room about 86 feet long by 15 feet wide, with one or two other rooms built on, each about 12 feet square. The roofs are always flat and are used as sleeping-places in the hot weather. The walls are too weak, and have too little power of resisting the rain, to support the roof, which is accordingly held up on strong posts driven into the ground, the walls acting merely as a defence against the weather. Across the beams wooden rafters are laid, and over the rafters branches and leaves. The whole is then well covered with earth mixed with chopped straw. It is then plastered with cow-dung and chopped straw. The timber used is usually *phuláh kao, tút, kikhar* or *ber*. *Deodar* or *shisham* is seen

only in the houses of the rich. As a rule, the houses of the peasants are built for them by the village carpenter or potter, who receives his food while the work is going on, and a present of clothes or money when it is finished. Payment for work at a fixed rate is made only by the Khatris and the non-agriculturists.

The house is generally built at one side of an enclosure, surrounded by a mud wall. The courtyard may be common to several houses. On one side, adjoining the house, will generally be found a cattleshed, built much in the same way as the house itself. Sometimes, however, cattle are kept in part of the dwelling house, access to their part of it being through the main living rooms. The courtyard generally has a manger (called *khurli*) of clay for the cattle. On the other side of the courtyard ranged against the wall of the enclosure, is a raised earthen bench with the family *chula* or fireplace, earthen water pots, etc., and on the fourth side of the square is the entrance door, and possibly another rough shed for cattle or goats, or for a store of grass and other fodder. Outside the enclosure there is often another enclosure set round with a loose thorn hedge for the protection of goats and sheep.

The doors of the house itself revolve in wooden sockets or are made like shutters, and are closed usually by hasp and padlock. Inside, the houses are in general kept scrupulously clean, the walls *leeped* and polished, or sometimes whitewashed, with the pots and pans of the household arranged upon shelves or in recesses. In the matter of ventilation, however, the houses leave a good deal to be desired. The floor is only of earth but is kept clean and neat, being frequently hand-scrubbed with light clay and cowdung.

Especially on well irrigated lands the enclosure often contains a Persian lilac tree, an acacia or a *ber*, which gives it a more pleasing appearance.

Furniture.

The furniture in the house consists chiefly of necessaries. Every house contains receptacles for storing grain. These are made by the women of the household from fine white clay mixed with chopped straw. The larger receptacles are called *kúlih*, the smaller *ghalota*. The former is usually a rectangular tower built in one corner of the main rooms open at the top, with a moveable lid, and an opening at the side for taking out the grain. It holds up to 25 or 30 maunds. The latter is much smaller, is circular in shape, and holds three or four maunds. A few beds (*chárpáis*), often coloured a bright red with some kind of lacquer, several spinning wheels, several low stools, a churn, a handmill or two for grinding corn, pots and fans, trap, baskets, cotton quilts (*tuláí* or *lef*), and all kinds of odds and ends are found in every peasant's house. But there is no confusion. Everything is neatly arranged in order. Space has to be economized and things not in use are disposed on shelves and in bags.

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The cooking vessels used by the villagers consist of—

Katwi (*degchi*), a big vessel in which the food is mixed and cooked, to stir which a *chamcha* or *doi* (spoon) is used; *rakábi*, a saucer, used as a small dish; *tabákh*, an earthen vessel, used for putting bread on, and for mixing the flour with water before cooking; *sahnak* or *pátar*, larger earthen vessels of the same kind; *gharrah*, earthen pot for water; *katora*, a small open vessel, usually made of mixed metal in this district; *thál*, also of mixed metal, for placing bread upon when about to be eaten; *piála*, *tás*, *bathal* or cup, of earthenware; *changer*, or *chakor*, a sort of flat open basket or wicker tray; *tind*, an earthenware vessel, a sort of small *gharah*; *tawa*, a flat iron dish or plate upon which the bread is cooked in (*chapátís*, etc.); *karáhi*, also of iron, with two handles, of all sizes, used for confectionery; *kúza*, usually an earthenware vessel used for washing the hands; *chaturi*, used for keeping milk, made of earthenware; *dola*, also of earthenware, used in milking, etc.; *galni*, an earthenware vessel used for making butter, curds, etc.; *kulfi*, an earthenware vessel with a lid to it; and *battakh*, an earthen water-bottle, used by pedestrians, or by shepherds, graziers, etc., to carry their drinking water in.

The miscellaneous articles usually found in a *zamíndári* house consist of—

Piri, a low square stool some 6 inches high and 18 inches square, on which women sit; *chaki*, the flour-mill of two stones, one of which revolves on the other; *chúla*, the fire-place; *charkha*, the spinning wheel; *súi*, needle; *shhánni*, or sieve for cleaning flour; *pakhi*, small fan; *tokra*, basket for various purposes; *uri*, a kind of bobbin from which the thread is spun; *ateran*, for winding thread on to before placing it on the bobbin or *uri*; *siláí*, a large iron needle; *nála*, a kind of reel; *tarakla*, a bobbin; *karandi*, an iron ladle for oil; *madháni*, a churn put into the *galni*, and revolved to make butter; *belni*, a cotton gin; *tarakri*, scales; *binda*, a low stool; *palang*, a bed; *balang*, ropes for hanging clothes on, clothes lines; *diva*, small lamp, *chirágh*; *chhaj* a sort of shovel-shaped basket for sifting grain, or, when larger, for sifting refuse; *langri*, a mortar of stone or hard earthenware; *chattu*, a large stone mortar; *mohla*, a pestle made of wood; *chauki*, a square unbacked chair; *choha*, a measure of capacity, usually of wood; *paropi*, a small measure of the same kind; *bát*, a weight, usually of stone; *dabba*, a small round box of wood or brass; *surmedáni*, a small vessel for blacking the eye-lashes; *shisha*, small looking-glass; *ucha*, a small pair of pincers for extracting hairs and thorns; *pirha*, a very low chair with a back, lacquered usually, and used at marriages and feasts; *matti*, a large earthen vessel for water; *jháwli*, an earthen vessel used for holding miscellaneous things; and the *hukka* last, but not least, completes the tale.

When any Musalmán dies, his relatives are summoned by the *nái* or other *kamin*, and the female relatives assemble and weep round the body. His male relatives in this district go themselves to dig his grave, and preparations are made for the funeral feasts.

If the deceased is a male, the *Imám* of the *masjid* bathes the body; if a female, the women of the family bathe and lay it out, and the shroud is prepared of white cotton cloth. Twenty-five yards are taken up in a man's grave clothes, which consist of a suit fitting to the body, and two long winding sheets.

Disposal of the dead.

When the grave is ready, the bed on which the body is lying is lifted by the near relatives and carried to the grave, those accompanying it repeating the *Kalma* as they go, having prepared themselves as for prayer. At some distance from the graveyard the bed is set down with its head to the north and its feet to the south. The Mullán stands on the east side and turns his face towards Mecca, and the by-standers range themselves in three rows behind him. Prayers are then said, and charity is collected from Rs. 3 to Rs. 40 in cash, or grain from 4 to 20 maunds, with copies of the Qorán. The Qorán is first passed round from hand to hand, and then the money, grain and copies of the sacred book are distributed. The charity thus collected is known as the "*askát.*" It is divided into three shares; one share goes to the *Imám* of the *masjid* who leads the prayer, one share to the *kamins* or village servants, and one share to the other Mulláns, Darweshes and the poor who may be present.

After this the body is taken to the tomb, and lowered into it. The grave is always made north and south, and the head is placed north and the feet south, the face as far as may be, being turned towards the Qibla and Mecca; the winding clothes are then loosened and the tomb is closed with stones and filled in with earth and gravel, made into a mound. One stone is set up at the head and a smaller one at the feet, and thorns are placed over the grave to keep off animals. The *Imám* then stands at the west of the grave and exhorts the people that all must die, and then gives forth the call to prayer or *báng*.

Then the relatives and others who have come in are fed by the deceased's relatives. After four days, charity is again dispensed, and for the next four Thursdays the Mulláns are fed. After forty days, charity is dispensed, and thereafter one day in each year is fixed for a commemoration feast, to which the relatives bring contributions with them, and all the brotherhood; the Mullán and *Imáms*, any strangers who may be present, or any mendicants who may ask for it, are fed, and as much as twenty maunds of flour and ten maunds of meat are sometimes consumed. These funeral feasts and expenses are nearly as great a strain upon the resources of the people as the expenses of their weddings.

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It is generally possible to distinguish between the graves of men and of women by the manner in which the gravestone is set up. In one part of the District the male has the gravestone at one end, and the woman at the other. Elsewhere one sex has the stone placed parallel to the length of the grave, and the other has it parallel to the breadth, in other parts no such distinction is made. When a Hindu dies no food is cooked in the house on the day of the death; the neighbours provide what is necessary. The house remains in mourning so long as the funeral ceremonies (*kirria karam*) last, usually for 13 or for 11 days, the nearest relatives of the deceased sleeping on the ground. After that all clothes and vessels are purified, and the earthenware *gharas* and other utensils are replaced by new ones. The body of the deceased person is burned in the usual manner, and on the fourth day after the death a bone from each limb is collected and sent off to the Ganges in charge of a Brahman or a relative. If this cannot be done at once the bones are deposited in the walls of the *dharmsál*, or buried, and eventually sent to the Ganges, nearly always within the year. On the return of the messenger from the Ganges the Brahmans are feasted in thanksgiving for his safe return.

Amusements.

The *zamindár* of the district, for all his laborious toil, allows himself a considerable amount of recreation—marriages and fairs are special occasions in which every one joins once or twice a year. There are also a number of games which are frequently played in the villages.

The great game of the district is *pirkaudi*, a rough sort of prisoner's base. This is played by the villagers themselves, and often in competition by the men of various villages. Large numbers join, and it is played at all times of the day when not too hot. Many villages are only too glad of an excuse to forsake work and play *pirkaudi*. One man runs out into the open, two others pursue him. He tries to hit each of his pursuers in turn and then escape while they attempt to throw him down, but must do so until he has touched them. The game causes the greatest excitement and rivalry between adjoining villages. *Bugdar utháná* or *tarár utthána*, the lifting of heavy weights, *mungli-pherna*, the working of heavy Indian clubs, and throwing a stone are popular amusements.

Bíní pakarna is a kind of wrestling in which the athletes seize each other by the wrist only, but wrestling is not a village game at all. Wrestling matches excite great enthusiasm, but very seldom take place.

Sammi, lodhi, bhangra and *dhamál* consist of a kind of dance, and are usually practised at weddings.

Tent-pegging (*neza-bázi*), lime-cutting and similar sports are practised to a considerable extent in parts of the district. In Tallagang tent-pegging is less kept up than it used to be. In

some villages, however, such as Láwa and Tamman, the Malliks are still very fond of it, though they are not very skilful. An interested crowd always gathers to watch and applaud.

The higher classes, especially the Chaudhris of Talagang, and the Jodhras of Pindigheb, go in a good deal for hawking, coursing, and more rarely shooting.

The boys in the villages play various games, some of them resembling those played by English boys. *Lambí-kaudi* and *kaudi kabadi* are kinds of prisoner's base, but quite different from *pir kaudí*; *chappan chhot* is the same as hide-and-seek; *kanhuri-tala* corresponds to "tipcat"; *chinji-tarap* is hopscotch; and there are various other games of a similar kind.

Fairs.

The *melás* or fairs, which are common in the district, are usually semi-religious gatherings. They are nearly all connected with shrines, and an important feature of the *melá* is the making of offerings to the shrine, and the distribution of food from the *langar* of the shrine. The chief fair in Tallagang is that held at Jabbi. Four large fairs, known as *Urs*, are held yearly at Makhad, on the Indus, in Pindigheb tahsíl, at the shrine or *ziárat* of Sayyid Abdullah Shah, Sitáni, known generally as Mùrí Bádsháh. Large crowds gather to pay honour to the shrine, and on these occasions great quantities of food are distributed. The principal fair is held in August and is attended by about 6,000 persons. The shrine and the present *gaddi nashin*, Pir Gulam Abbás, are held in high repute.

In Fatteh Jang Tahsil a fair attended by about 4,000 persons is held at Kot in the month of Baisakh.

At Attock a fair takes place at the shrine of Sultán Sadr Dín, Bukhári, on the first Thursday of Bhádon, and is attended by about 7,000 persons both Hindu and Muhammadan. There is also a shrine at Thíkarián, Tahsil Attock, the Khángáh of Mían Wali Sáhib, Gujar, visited by persons suffering from diseases of the eyes. Cures are supposed to be effected by placing upon the eyes earth from the tomb.

At Hasan Abdál there is a very well known shrine at the top of the Hasan Abdál hill 2,346 feet high. The shrine is the Khángáh of Wali Kandhári. It is visited every Thursday by a number of persons, and throughout Thursday night in the shrine a lamp is kept burning, which in the common belief cannot be extinguished by wind or rain. The Panja Sáhib tank and temple are also the scene of a religious gathering in Baisákh, attended by three or four thousand persons.

These are the chief fairs of a religious nature in the district, but there are many others held at various intervals which do not justify special notice. Most *melás* are unimportant.

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Population.
Names and titles.

There is nothing noteworthy about the personal names in common use in the district. The few Gakkhars and Janjuas occasionally employ very high sounding names, as they do elsewhere, but the members of the prominent tribes in the district are content with the more sensible names they have inherited from their ancestors. The Pathans of the Chhachh and Makhad have of course distinctive names, but there is nothing peculiar about them. The common *zamindar* names are everywhere employed, and abbreviations are extremely common; Mandu for Muhammad Khan, Ditta for Allah Ditta, Maulu for Maula Bakhsh, Fája for Faizá Khan, and similar contractions. As for titles the commonest is "Mallik". It is used by the heads of the Johdra families, and by all the headmen of the Awans. "Raja" is applied to Gakkhars and Janjuas, but in strictness the younger members of the family should be addressed as Mirza. "Sardár" is the title of the chief Ghebas. The Khattars use the same title. "Chaudhri" is the title of prominent Mairs and Kahuts. It is also used by Jats and others. The headman of the Alpials is addressed as "Chaudhri". The Gujars use "Chaudhri" or "Mehr." Among Hindus the usual titles are in vogue. The Muhials are generally called "Mahta" but the titles of "Dewan" and "Bakhshi" are also in use. "Raizada" is not used in this District. Holy men among the Muhammadans, whether of Sayyid descent or not, use the title "Pir." Among the Hindus they secure the title of "Bhai". Paráchas are addressed as "Mian."

CHAPTER II—ECONOMIC.

Section A.—Agriculture, including Irrigation.

CHAP. II, A.

Agriculture.

Areas.

The area of the district is divided as follows :—

Cultivated	... 913,760
Culturable waste	... 1,669,332
Government Forests	... 216,806
Other unculturable waste	... 1,171,633

The last item consists chiefly of ravines, torrent beds, hills and rivers.

Soils.

In general, the soils of the district take their character from the underlying rock, and are in consequence either limestone or sandstone detritus; but there are wide variations from this rule, and it will be necessary to mention one or two circles in some detail.

Chhachh ká dil.

The portion of the Chhachh north of the Chel stream is totally distinct from any other tract in the district. The lands nearest to the Indus are poor in quality, very sandy and stony, but the remaining area of this part of the circle, the tract known locally as "Chhachh ká dil" (the heart of the Chhachh) is of the highest fertility. The soil is a rich loam, an alluvial deposit from the Indus and the surrounding hills. Water is near the surface, wells are numerous, and the farming, especially of well lands, is excellent. The crops of sugarcane, tobacco and maize on the well lands, and of maize and wheat on the *baráni* lands, are always heavy. "*Chhachh ábád te mulk ghair ábád*" is a common saying, meaning that the Chhachh does best in seasons of scant rainfall, the soil being naturally moist. It does not do badly even in years of heavy rainfall, though the yield invariably suffers. South of this fertile tract and on both banks of the Chel is a narrow strip of swampy ground.

The Chel lands.

Water is nowhere more than a few inches below the surface, and constantly oozes out on the surface. Every hole and depression is full of stagnant water, and there are few fields that are not water-logged. The case of high-lying fields is even worse, for their soil is a prey to *kallar* that has been deposited by evaporation from moisture brought up to the surface by capillary attraction. The water in the main channel of the Chel is only a few inches below the surrounding ground. The current is sluggish, the channel being narrow and much choked by agnatic weeds. This tract extends from Musa Kudlatti to Shamsábád, and was thus described by Mr. Steedman, Settlement Officer, at Revised Settlement:—

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"The Chel lands are situate along the Chel stream, on either side, from the village of Khagwání to that of Shamsábád. The water-logged condition of these lands is due, I fancy, to the following causes: The Chhachh plain is some 300 feet below the watershed running from Lawrencepur to the Attock hill. Water, throughout the plain, is near the surface, and is, I believe, supplied by percolation from the Indus. The rain that falls on the high-lying Maira above, sinks in and finds its way down to the Chhachh plain; and there, meeting the subsoil springs of that plain, is forced up to the surface between the plain and the foot of the Maira. My answer to the question,—Why then does not water ooze up all along the base of the Maira? is—(first) that probably the subsoil drainage of the Maira is directed on to the Chel lands by the Kámrá hill on one side, and spurs from the Gandgarh on the other; and (secondly) that from Shamsábád the water-table is farther from the surface, and Chel runs in a deeper channel. The lands between the Chel stream and the Maira are consequently much wetter than those on the right bank. The soil itself, apart from the water, is good enough—a light loam, without any approach to clay, except in a few spots. A good deal of harm has been done by *kallar* on the right bank near Darya; and also on the left bank near Shamsábád. Judging from the general tenor of Major Cracroft's report, the village assessments, and the villages' internal rating, there must have been great deterioration in these lands since the first Settlement. They are now poor, sour and water-logged soils, on which only *kharif* crops can be grown with any chance of success; either *kallar* or water being fatal to the greater part of *rabi* crops, if sown."

The fringe of the Sarwala ridge.

From the edge of the swamp the ground rises to the high ridge, the watershed between the Chel and the Haro systems extending from the foot of the Gandgarh mountain, some two miles south east of the Kibla Vándi hamlet of Mauza Malikmála to the village of Rúmíán at the foot of the Attock hill. The western end is a rocky spur moving down from the Gandgarh mountain, and attaining a maximum elevation of 1,869 feet close by the tahsíl boundary. The rocky formation soon ceases, and is succeeded by indurated clay cliffs, that are in turn replaced by a ridge of loose sandy soil. The northern fringe of this slope down to the edge of the Chel lands is mostly composed of a poor sandy soil and falls gradually to the plain below. Here and there soil of a more clayey composition is found and the gradual slope disappears. The surface becomes broken and intersected by drainage channels with high steep clay banks. Beyond Kibla Vándi the character of the slope changes altogether. The soil is a stiffish loam near the plain, but as the Gandgarh spurs are reached, the soil becomes stony and further on rock crops out. The drainage channels are abrupt and steep, and the beds are lined with coarse sand and rocky detritus from Gandgarh.

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Gandgarh drainage and that of the sandy uplands.

The soil of the whole of the tract just described is much affected by the drainage from the Gandgarh and by that from the sandy uplands to the south. The large drainage channel that debouches upon the village of Nartopa and those of the north-east belong to Gandgarh, and all those to the west to the other category. The Gandgarh drainage flows over the centre portion of the Chhachh plain from Ghurghushti and Malikmálá to Máíá and Lundí Núrpur. The fertility of the Chhachh depends in a great measure on the Gandgarh floods. These do not much benefit the lands over which they first pass. The sand and coarse detritus they bring down do perhaps a little harm to parts of Ghurghushti and Malikmálá, but after the first violence of the flood is spent, and the water spreads over the level lands of Nartopá, Shírká and the villages to the west, the benefit derived is of the highest value, and unirrigated and unmanured land is often double-cropped. Finally the flood waters, by depositing the matter carried in suspension lose the greater part of their virtue, and in the western end of the circle the unirrigated lands again become poor in quality. The well irrigated lands too are not equal to those further east. The few villages in the west corner of the circle that do not receive Gandgarh drainage are inferior in quality, but they contain a large number of wells, from which the income is very large.

The drainage from the sandy uplands does perhaps more harm than good. It falls entirely into the Chel stream.

The Maira.

From the watershed between the Chel and the Haro to within a short distance of the latter stream, and from the Indus to a few miles beyond the village of Mirza, extends a rolling sandy plain generally known as "Maira" by the natives. Near the Indus there is some hilly and ravine ground, but elsewhere the ground is fairly level, the drainge channels being little more than shallow depressions. All this plain suffers greatly from drought. It may not be cultivated for several harvests, and then in a year of good rainfall be all brought under the plough. Only the least valuable crops are grown, and there are constant failures of the harvests. Near the Haro the soil loses its sandy character, and is somewhat intermixed with stones. The country becomes very broken as drainage channels suddenly deepen, and with their lateral feeders become impassable ravines, except at a few known points. South of the Haro there is a decided improvement. The soil is not particularly good, and varies much in quality from loam to clay; but more use is made of surface drainage and the fields are better embanked.

The Attock Nálá.

Westwards from Mirza to the Hazara border, near Bhedián, the strip of country along the right bank of the Haro is, with the exception of a few alluvial strips close by the stream, an intricate network of deep ravines and watercourses. The higher

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ground is generally strewn with water loam pebbles or coarse earthy kankar nodules. Here and there rock juts out. Cultivation is scanty, as the soil is extremely uneven and of the poorest quality. Further away from the hills there are fewer stones and soils varying from light to stiff loams. There is some capital land along the Káwágar hill. The country between the Káwágar and Khermár hills is inferior. It lies high, is poor in point of soil, and seamed with deep ravines. Rock constantly crops out, and is generally near the surface. The tract from Katárian westwards to the tahsíl border, and across the Grand Trunk Road northwards, to the villages irrigated by cuts from the Haro, contains the best baráni land of the circle. In quality it is loam, easily worked, and in years of good rainfall producing heavy crops. The rain lands in the villages along the Haro, after it turns south-west, are generally poor. There is hardly any level ground, and the best lands are those embanked in the ravines; the rest are of inferior quality.

Yet, whatever the variations in the quality of soil, everything depends on the rainfall. In spite of the excellence of the soil to the west of the circle, one year there is no harvest at all, next year the crops are so heavy that the grain is with difficulty threshed and garnered.

Fatteh Jang Nálá.

The Fatteh Jang Nálá takes its character from the underlying limestone rock. The soil being of limestone formation is much superior to the sandstone soil south of the Kala Chitta. The tract is everywhere gashed by deep ravines which carry off the drainage of the Kala Chitta. To the west pebble ridges crop up. The circle is well watered by the numerous streams which run through. Though these streams occasionally dry up in years of poor rainfall, yet deep pools here and there allow of Jhallárs working on their banks, while wells are sunk in alluvial patches in their beds. The centre of the circle round Bahtar village is the most fertile and prosperous part of the district south of the Kala Chitta. On the east the nálá shades off into the western and drier part of the Kharora circle of Rawalpindi, with which it has much in common.

The Gheb.

The Gheb lies between the Kala Chitta and the Khairi Murat. The soil resembles the dry gravelly soil of the Rawalpindi Kharora. The east part is sandy, but fertile, while to the west the soil gets drier and harder. Generally, the soil is excellent, and needs only ample rain to yield heavy crops, but is incapable of standing drought or the hot sun of summer. The Gheb is not badly watered, and few villages suffer from want of drinking water.

The Jandál.

The Jandál villages are in strong contrast to the rest of the district. Ravines are few. Rock crops out only very occasionally. The greater part of the circle is a rolling plain of light sand.

There is a little irrigation from wells and springs, but the most of the tract is an open gram-growing country. Kharif cultivation is of little importance. Wheat is grown, but the characteristic crop is gram.

The rest of the district.

As far as soil goes the rest of the district is of one class. The soil is a light loam taking its character from the underlying sandstone rocks, which all over the tract frequently crop up to the surface. Soil is deep only in depressions. The surface of the country is scored by numberless ravines. The larger torrents have often wide beds of sand, fringed with broad or narrow strips of rich alluvial soil. On these strips wells are sunk. From the torrent bank the country rises in rough dry slopes of light loam soil, often washed away in places and exposing the rock below. In conformation of surface the Makbad ilaka is somewhat different from the rest. The country is wild and mountainous. The soil is sandy, and is deep enough for cultivation only on the tops of the stony plateaux or in the deep valleys banked up at the lower end to catch the soil washed down in the floods. Wells are few and small in area.

Classification of land.

Fatteh Jang and Pindigheb tahsíls.

The four tahsíls of the district having been settled at three different Settlements, the classification of land is not uniform. In Fatteh Jang and Pindigheb tahsíls the classification is the same as in Rawalpindi district, which was settled at the same time.

The following distributions of soil are recorded in the revenue papers :—

Chahi.—All lands irrigated by wells.

Abi.—Lands irrigated by springs or otherwise than by wells or canals.

Nahri.—Lands irrigated by canals. (There are none in these tahsils.)

Sailáb.—Lands flooded by streams, or which by the proximity of water are naturally moist.

Lipára.—Land adjoining a village site and enriched by the drainage of the village site, or by the habits of the people, or land which is habitually manured and is of excellent quality. Such land is generally double-cropped.

Las.—Land lying in a depression and receiving water from other lands, or land on which embankments have been built to retain drainage water. Such land is always of excellent quality.

Maira.—Ordinary *báráni* lands not included in any of the above classes.

Rakkar.—*Báráni* lands which are so stony or sloping or unfertile that they cannot be classed as Maira.

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Tallagang tahsíl.

In Tallagang the recorded soils are:

Irrigated.—

(*i*) *Chahi.*—Land irrigated from wells.

(*ii*) *Abi.*—Land irrigated from springs.

(*iii*) *Sailáb.*—Land affected by river floods.

Unirrigated—

(*i*) *Hail*, land regularly manured, which in practice means almost exclusively land close to the village *ábádí* or outlying homestead.

(*ii*) *Báráni Awwal*, land receiving drainage from higher ground, and retaining it either naturally, or by means of embankments.

(*iii*) *Maira*, level or fairly level lands of average quality, which may in some cases receive a limited amount of drainage from above, but have no special means for retaining it.

(*iv*) *Rakkar*, land on a steep slope, off which all moisture quickly drains, or owing to excess of stones or sand or other disadvantage, distinctly inferior.

For assessment purposes only three classes of land were adopted, *(a)* irrigated, *(b)* superior *báráni*, *(c)* inferior *báráni*. The last class included *maira* and *rakkar*, while the other two classes of unirrigated land were thrown together as superior *báráni*. This simple classification was found to be quite accurate enough, for *hail* and *báráni I* are almost equally remunerative, while *rakkar* is everywhere a very unimportant class. *Hail* corresponds very closely to the Fatteh Jang and Pindigheb *lipára*, and *báráni I* to *las*.

Attock tahsíl.

In Attock tahsíl the classification of soils gave much trouble and is not yet simple.

The classes adopted were—

(*i*) *Cháhi.*—Land irrigated from wells.

(*ii*) *Abi*, (*iii*) *Nahri dofasli*, (*iv*) *Nahri ekfasli* } Land irrigated from springs and water-cuts.

(*v*) *Sailáb*, (*vi*) *Lipára*, (*vii*) *Las*, (*viii*) *Maira*, (*ix*) *Rakkar* } As in Fatteh Jang and Pindigheb.

The distinction between *ábi* and *nahri* depends on the nature of the irrigation from the Haro river, above Sultánpur, where the stream sweeps round to the south, that is to say in the main in the Panjkatta tract, the water-supply is not perennial. The Haro

is at that part of its course for a large part of the year dry, and the irrigation is not dissimilar to that from an innundation canal. With each fall of rain a freshet comes down the river and this is caught and taken on to the land. The other irrigation is all perennial, whether it is from springs or petty streams fed by springs, or below the village of Sultánpur, where the Haro becomes perennial, from the Haro itself. Here, however, only comparatively small areas are irrigated in the bed of the river, and the water is not really Haro water, but the production of springs which fall into the Haro bed just above. The term *nahri* has, therefore, been confined to the Panjkatta tract and one or two other villages down to Sultánpur, and everything else has been called *ábi*. In the villages of Hasan Abdál, Wah and Sabzpír, three crops are sometimes taken off *ábi* lands instead of two. Either the local name for the superior land has been recorded in the papers after the word *ábi* or *ábi I*, *ábi II*, *ábi III* have been entered. In several villages superior *nahri* land, which is manured or which catches the site from the irrigation channels, was found to have borne six crops in eight harvests, and has been classed as *dofasli nahri*. The total area is only 1,702 acres spread over several villages. In Sultánpur, where the *nahri* lands are of very varying fertility, the local names have been added to the records.

Sailáb has two meanings. The *sailáb* in the Chhachh and Sarwála Circles means Chel land pure and simple. The land in the Chhachh which is flooded by the Indus is wretched and has therefore been classed as *rakkar*, except in mauza Jabbar. There it is of rather better quality and covers 128 acres, but it only occasionally gets the river spill, and has been shown as *maira*. In the Sarwála circle there are 51 acres of *sailáb* along the Haro and the Indus, but the land is poor in the extreme, and has been classed as *maira*. The other class of *sailáb* is that of the Nálá circle, which is all river *sailáb*. In the matter of fertility there is little difference between the Chel lands and the genuine *sailáb* of the Nálá circle, but the course of husbandry is distinct.

Las, like *sailáb*, has two meanings. In the Chhachh it means land which is covered by the spill from the Gandgarh range. After a storm a torrent rushes down, does a little damage at the foot of the hill, and then spreads a rich silt over the surrounding country. The result is an extraordinarily fine soil. This kind of soil has been recorded in whole or in part in thirty-one villages in the Chhachh.

In the Sarwála and Nálá circles *las* means embanked lands in ravines or depressions, which, by virtue of their embankments, catch and retain the moisture. These lands are very precarious. The embankments cost some money and a good deal of labour to make, and are very liable to be breached; when they are, the land, from being of a high class, becomes unculturable.

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In general only one class of *Maira* has been recorded. But in nine villages in the Chhachh and four in the Sarwála, two classes have been shewn. The villages are partly some of those along the Chel stream, whose northern portions are characteristically Chhachh, but which run back into the typical Sarwála sand, and partly those estates along the Indus which were swept by the great flood of 1841, and half of which were covered with sand and boulders and half of which escaped. The sub-division is formed only in those estates within which there are pronounced differences of soil.

Rakkar is the poor stony soil under the hills, indeed any land which by reason of salts, *kankar*, nodules, etc., is barely worth cultivating.

Apart from the obvious distinction between irrigated and unirrigated, manured and unmanured soil, the chief distinction between soils depends on their situation, though of course geological and chemical conditions have their influence too. Thus, *las* owes its character to its position in a ravine which can be embanked at the lower end or below other land from which it can receive drainage. *Maira* is flat and absorbs the rain that falls upon it, but gets no drainage from other land. *Rakkar* is often on strong slopes, and does not as a rule retain even the rain that falls on it.

The following table shews the proportion of land in each of the principal classes :—

Tahsíl.	Pecentage on total cultivation of								
	Châhi.	Abi.	Nahri.		Sailáb.	Lipára or Hail.	Las or Báráni I.	Maira.	Rakkar.
			Do-fasli.	Ek-fasli.					
Attock ...	6·0	·6	·9	3·2	1·2	2·1	6·0	74·3	5·7
Chhachh ...	15·5	...	...	...	·4	1·5	15·5	63·0	4·1
Sarwála ...	2·5	2	...	...	2·2	1·3	·5	86·6	6·8
Nálá ...	2·1	1·4	2·0	7·5	1·0	3·1	3·1	73·7	6·1
Fatteh Jang ...	3	...	...	...	2	3	5	80	7
Pindigheb ...	1	...	...	...	...	2	2	92	3
Tallagang ...	·9	...	...	...	...	10·5		88·6	
District ...	2·5	·2	·2	·6	·8	7·6		88·1	

System of cultivation. Wells.

Well cultivation, which is of considerable importance, accounts for 3 per cent of the total cultivation. It differs largely from Tahsíl to Tahsíl. The first great distinction is that south of the Kala Chitta—as compared with the cultivation

of Attock tahsíl and the tahsíls of Ráwalpindi District—the principal crops are ordinary zamindar crops, maize, bajra, wheat and barley, while the rich garden crops, which are so profitable where they can be successfully grown, are here but seldom grown at all. This is due to the absence of markets and to the fact that the cultivation is in the hands of *zamíndár* owners and occupancy tenants, and not in the hands of Malliárs, who alone have skill in market garden cultivation. The growing of garden crops and the hawking of them for sale is not considered decent for a self-respecting *zamíndár*. Again, south of the Soan the wells are much less elaborate affairs than in the Fatteh Jang and Pindigheb Tahsils.

Tallagang wells.

The Tallagang wells almost without exception are situated in the slips of moist alluvial land which form on the banks of the torrents wherever they broaden out: water is found at a moderate depth, and the wells, roughly but strongly built of unmortared stone, cost but little to make: the expense, of course, varies greatly, but an average well may be taken to cost from Rs. 100 to Rs. 125, plus about Rs. 45 or Rs. 55 for the wood-work. The area commanded by these wells is very small, seldom exceeding a couple of acres, often much less, and this too generally split up between a number of co-sharers; the cultivation therefore is generally of a fairly high class especially when the wells are held by Malliárs, as most of them are. The wells are, however, often dependent on the rainfall to a great extent, for in time of drought the supply of water runs very low, in extreme cases failing altogether; and the soil is not seldom poor and sandy, or tainted here and there with *shor*, but on *cháhí* land of fair average quality the yield is good and certain, and the land is almost always under one crop or another. *Bájra*, for instance, may be taken in the kharíf, wheat, or more probably barley, will be put in as soon as the *bájra* is off the ground, and if the rabi crop is used as fodder, a *záid* rabi crop or early maize (sown in Baisákh) will follow it. Cotton is a good deal grown, and pepper and various garden crops: but the ordinary zamíndár in many parts carries his prejudice against garden crops to such an extent that he will not grow them even for his own use for fear of being taunted by his friends with having turned Malliár. Cane is hardly grown at all; either the climate does not suit it or the cultivators prefer a quick succession of less remunerative, but also less troublesome, crops.

The best wells in the tahsíl are on the Anhar at Tamman. Many of the wells are very poor, and those of later construction are not (like the old one) always in the hands of Malliárs, but have in many instances been sunk by ordinary zamíndárs, who are less able to make them profitable. These lands are all well manured.

The wells are generally amply provided with cattle, owing to the subdivision of the land attached to them between several owners or tenants. They are generally worked by buffaloes two or even one per well being sufficient: these work singly

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for 6 hours each, irrigating about 3 *kanáls* a day between them: on Malliár wells not less than 3 buffaloes are used, and the well is worked longer in proportion.

Fatteh Jang and Pindigheb wells.

The Fatteh Jang and Pindigheb wells are much more valuable. The average area cultivated and harvested per well is approximately 3 acres cultivated and 6 acres cropped in each circle of Fatteh Jang, while in the Pindigheb Tahsíl the corresponding areas are 2 acres and 4 acres in Jandál and Makhad. The Sil Circle takes the lead with average of 4 acres cultivated and 7 acres cropped per well cylinder. These areas are much larger than the corresponding areas irrigated by the rich garden wells of Gujar Khán and Ráwalpindi. The two great well tracts are the valleys of the Soan and Fatteh Jang Sil, which lie close to one another and the valley of the Pindigheb Sil near Pindigheb town. The Soan valley is a continuation of the Soan valley of the Rawálpindi Tahsíl, and the wells lie in clumps along the rich alluvial banks on either side of the broad bed of the stream. Water is near the surface and seldom more than one buffalo is used to work the well wheel, indeed the male buffalo is everywhere used on wells in preference to other cattle. The water-supply in the wells is very seldom so abundant that the well wheel can be worked day and night, so that the distinction between good and bad wells depends almost entirely on the water-supply, the latter again depending on the character of the subsoil, whether clay or sand. The cautious zamíndár always sinks a trial boring before beginning to dig a well, and abandons his project unless he can find a spot where clay strata will not interfere with the intended cylinder. The cylinder itself is made of dressed stone, sometimes undressed stones, laid in mud, or less commonly laid in mortar. The cost of a well varies from Rs. 200 to Rs. 400 throughout the two tahsíls. The Sil wells are next in value to the Soan wells, and differ from them mainly in the water-supply being less abundant. The wells on the Wadala stream in the Sil Soan Circle are much troubled with thick strata of hard clay; and there are few good wells among them, although the soil is in no way inferior to that of the wells on the other streams. The best of the wells on the Pindigheb Sil are all within a few miles of the town. Some of these are extremely valuable but many are sandy and inferior. The water-supply is not inferior to that of the Soan wells, but the soil is inferior, the irrigated area is larger and the Awan tenants do not take so much trouble over their lands as the hardworking peasant owners and Malliár tenants of the Soan. In the Pindigheb Tahsil there are a good many wells along the north bank of the Soan river, which here forms the boundary between Pindigheb and the Chakwal and Tallagang Tahsíls. The Soan at this part of its course runs among wild ravines and hills, alluvial patches are few, and wells much inferior to those in the higher reaches of the Soan bed. With the exception of these well tracts, where wells are numerous and valuable, all the wells lie scattered

here and there, in alluvial patches in the beds of the numerous torrents, which intersect and drain the two tahsíls.

The Nandna, Bahudra and Reshi with the feeder streams of the two Sils, all have a few wells under their banks. In a few villages wells can be sunk in level lands at a distance from a torrent bed, but this is very rare, and such villages are always looked upon as remarkable. Everywhere double cropping is the universal rule on well lands and great quantities of manure are used. Without manure there can be no good well cultivation, so that the cultivator uses all his own manure and, if necessary, buys or borrows from his neighbours and from surrounding villages. Where wells are numerous, the *lipára* area is always correspondingly small and *báráni* lands generally receive less attention and suffer by comparison from neglect. The cultivation is always the best that the zamíndár knows; some men plough and manure and weed more than others, but all are alike to giving their most constant attention and their hardest labour. Of all the *cháhí* crops the most valued is maize and the Soan wells are famous for their maize, which is only second to the maize of the Chhachh plain in Attock. On the best wells the yields are extraordinarily large, so much so that 50 maunds and even more per acre is sometimes yielded by a good well in a good year. Throughout the Fatteh Jang Tahsíl maize is the kharíf well crop and is the pivot upon which the cultivation of the year turns. A good deal of cotton is grown in the Sil Soan, but much less than enough to supply local needs. A little pepper and vegetables makes up the rest of the kharíf cropping. The maize is usually off the ground too late for good wheat crops to be sown, so barley, sown in December and January, follows the maize. In the Sil Soan late sown wheat is considered as good as barley and is grown even more than barley. A good many vegetables, onions, carrots, etc., are grown in the rabi, but the rabi is on well land only a bye crop and is in all respects subordinate to the kharíf. The land gets little rest; heavy manuring, close cultivation, constant weeding and plentiful water enable two crops to be forced off the land year after year with little rotation, and with no apparent diminution of fertility. In Pindigheb and especially in the Sil and Makhad circles, maize is not the exclusive kharíf crop. In most parts of the tahsíl bájra is more grown than maize on *cháhí* land, and in some villages maize is not grown at all. The reason for the neglect of maize lies more in the want of skill of the cultivator than in any other reason, but maize dislikes excessive heat and the scorching plains and hard soil of the west of Pindigheb are not favourable to maize. The best wells of the Sil, which lie close round to Pindigheb, grow a great deal of excellent maize, which yields little less than on the wells of the Soan. Near Pindigheb there are a few wells, rack-rented by money-lenders, on which Malliárs engage to pay to the owner a lump rent of 40 maunds of maize per acre cultivated without reference to cropping, the tenant taking for

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himself all the crops which he is able to grow on the well in the year. It is, however, doubtful whether any such rent is ever really paid, while the wells upon which such rates are fixed are very much above the average of the wells in the Sil circle. The Makhad and Jandál wells are few and inferior, the best being close to Makhad town, where some good vegetables are grown, and close to Jandál, which is the principal village in the Jandál.

Attock wells.

The Attock wells are by far the most valuable in the District. The Chhachh wells are in a class by themselves. They correspond most closely with those of the Jabba circle in the Swábi Tahsíl of Peshawar, and have the additional advantage of being more centrally situated for markets. A large number of them, moreover, get the Gandgarh spill, and grow fancy crops. The *cháhí* area in the Chhachh covers over one-seventh of the total cultivated area, and pays nearly half the revenue. The water-level is high and the wells are easily worked. There is still room for the spread of well cultivation. Indeed the only restraining influence is the want of manure. In the Sarwála wells are much fewer. Well lands cover about one-fortieth of the total cultivated area and pay about one-fifth of the revenue. A large number of the wells are situated close to Campbellpur, which affords an excellent market, and in the northern part of the circle there are several wells which approximate in character to those of the Chhachh. There is not the same opportunity for well expansion as is to be found in the Chhachh, except to a limited extent in the villages bordering on the latter.

The wells in the Nálá circle are fewer in number. The well cultivation covers about 2 per cent of the total cultivated area. The wells vary much in character. The majority are in the Saggar tract, where conditions are very favourable, and these are the best. The Nálá wells are probably superior to those of the Sarwala, but whereas the Sarwála wells are largely in the neighbourhood of Campbellpur, where manure is cheap and the market good, the Nálá wells are far from any good market and are more expensive to work.

The well irrigation is of the general type found in Pesháwar, Ráwalpindi and the greater part of Jhelum. The land attached to each well is very small, and the amount of double cropping very large. The average area per well is 5·2 acres in Chhachh, 3 in the Sarwála and 2·8 in the Nala. On an average, sugarcane being taken as a double crop, 100 acres in the Chhachh produce 190 acres of crops, in the Sarwála 178 acres and in the Nala 172 acres. The superiority of the Chhachh wells thus lies both in the area commanded and in the cropping.

There are roughly speaking three classes of well cultivation. The least valuable is that in which a crop of maize in the kharíf is followed by barley, wheat, *methra* or *sarshaf* in the rabi. Except in the Nálá the favourite crop to put in after maize is barley. In that circle wheat as the second crop has become more common. In the

second class ordinary tobacco takes the place of the barley or even follows it. In the third type sugarcane occupies a considerable part of the area which in the other two is under maize. This last type is peculiar to the Chhachh, and reaches its highest development in the Chhachh wells near Hazro, where the cane is *paundha* and the tobacco is snuff tobacco. Cane is confined to the Chhachh lands. Where it occurs in the Sarwála, it is in the portions of estates in that circle which project into the Chhachh. Sugarcane is really a double crop, remaining in the ground a whole year. On the wells round Hazro the same land bears cane year after year and is very heavily manured and very carefully farmed. Cotton is usually followed by maize or barley and often two crops of maize are taken off the ground between May 15th and November 15th. With vegetables there is hardly any system of rotation. They are chiefly grown during the cold weather. In mauza Kálu Kalán the well lands are farmed as market gardens, and seem never to be bare. English vegetables are grown in the cold, and native in the hot weather.

There are hardly any *ábí* lands south of the Kala Chitta. Abí.
This soil is of importance in the three southern tahsils only in the Jandál circle, and there the total area is only 189 acres. Generally, it may be said that in these tahsíls *ábí* cultivation and cropping differ in no way from that on wells, except that the water-supply is more uncertain and the cultivation less careful. From this it follows that *ábí* lands are nowhere quite so valuable as well lands, and there is a tendency to take a somewhat lower rent.

The *ábí* lands of Attock tahsil belong to the Nálá circle. There is no *ábí* in the Chhachh and very little in the Sarwála. *Abí* cultivation varies enormously in value. A little is very poor. The finest, that derived from the springs in Wah and Hasan Abdál, costs much less than inferior cultivation of the same class elsewhere. Taken as a whole *ábí* cultivation is even more intensive than *cháhí*, but it is less valuable on the whole than the rich well cultivation of the Chhachh. A hundred acres of land bear 189 acres of crops. About three-quarters of the total *ábí* lands bear maize in the kharíf. Some cane and a little cotton are also grown. Maize is followed in the rabi by wheat and barley, the former predominating. Tobacco is also grown. The rabi sown area is always in excess of that of the kharíf. The *ábí* of the Sarwála circle is inferior. There is much less cane and wheat, and more cotton, barley and "other rabi" crops.

Nahri lands are confined to Attock Tahsíl, and within the Nahri.
tahsil to the north-east corner of the Nálá circle, the water being derived almost entirely from the Haro. The channels have their head for the most part in the Haripúr Tahsil of Hazara, and the Attock landowners are dependent to a large extent on the goodwill of the Ghakkar family of Khanpur for their supply. It is

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himself all the crops which he is able to grow on the well in the year. It is, however, doubtful whether any such rent is ever really paid, while the wells upon which such rates are fixed are very much above the average of the wells in the Sil circle. The Makhad and Jandál wells are few and inferior, the best being close to Makhad town, where some good vegetables are grown, and close to Jandál, which is the principal village in the Jandál.

Attock wells.

The Attock wells are by far the most valuable in the District. The Chhachh wells are in a class by themselves. They correspond most closely with those of the Jabba circle in the Swábi Tahsíl of Peshawar, and have the additional advantage of being more centrally situated for markets. A large number of them, moreover, get the Gandgarh spill, and grow fancy crops. The *cháhí* area in the Chhachh covers over one-seventh of the total cultivated area, and pays nearly half the revenue. The water-level is high and the wells are easily worked. There is still room for the spread of well cultivation. Indeed the only restraining influence is the want of manure. In the Sarwála wells are much fewer. Well lands cover about one-fortieth of the total cultivated area and pay about one-fifth of the revenue. A large number of the wells are situated close to Campbellpur, which affords an excellent market, and in the northern part of the circle there are several wells which approximate in character to those of the Chhachh. There is not the same opportunity for well expansion as is to be found in the Chhachh, except to a limited extent in the villages bordering on the latter.

The wells in the Nálá circle are fewer in number. The well cultivation covers about 2 per cent of the total cultivated area. The wells vary much in character. The majority are in the Saggar tract, where conditions are very favourable, and these are the best. The Nálá wells are probably superior to those of the Sarwala, but whereas the Sarwála wells are largely in the neighbourhood of Campbellpur, where manure is cheap and the market good, the Nálá wells are far from any good market and are more expensive to work.

The well irrigation is of the general type found in Pesháwar, Káwalpindi and the greater part of Jhelum. The land attached to each well is very small, and the amount of double cropping very large. The average area per well is 5·2 acres in Chhachh, 3 in the Sarwála and 2·8 in the Nala. On an average, sugarcane being taken as a double crop, 100 acres in the Chhachh produce 190 acres of crops, in the Sarwála 178 acres and in the Nala 172 acres. The superiority of the Chhachh wells thus lies both in the area commanded and in the cropping.

There are roughly speaking three classes of well cultivation. The least valuable is that in which a crop of maize in the kharíf is followed by barley, wheat, *methra* or *sarshaf* in the rabi. Except in the Nálá the favourite crop to put in after maize is barley. In that circle wheat as the second crop has become more common. In the

second class ordinary tobacco takes the place of the barley or even follows it. In the third type sugarcane occupies a considerable part of the area which in the other two is under maize. This last type is peculiar to the Chhachh, and reaches its highest development in the Chhachh wells near Hazro, where the cane is *paundha* and the tobacco is snuff tobacco. Cane is confined to the Chhachh lands. Where it occurs in the Sarwála, it is in the portions of estates in that circle which project into the Chhachh. Sugarcane is really a double crop, remaining in the ground a whole year. On the wells round Hazro the same land bears cane year after year and is very heavily manured and very carefully farmed. Cotton is usually followed by maize or barley and often two crops of maize are taken off the ground between May 15th and November 15th. With vegetables there is hardly any system of rotation. They are chiefly grown during the cold weather. In mauza Kálu Kalán the well lands are farmed as market gardens, and seem never to be bare. English vegetables are grown in the cold, and native in the hot weather.

Abí. There are hardly any *ábí* lands south of the Kala Chitta. This soil is of importance in the three southern tahsils only in the Jandál circle, and there the total area is only 189 acres. Generally, it may be said that in these tahsíls *ábí* cultivation and cropping differ in no way from that on wells, except that the water-supply is more uncertain and the cultivation less careful. From this it follows that *ábí* lands are nowhere quite so valuable as well lands, and there is a tendency to take a somewhat lower rent.

The *ábí* lands of Attock tahsil belong to the Nálá circle. There is no *ábí* in the Chhachh and very little in the Sarwála. *Abí* cultivation varies enormously in value. A little is very poor. The finest, that derived from the springs in Wah and Hasan Abdál, costs much less than inferior cultivation of the same class elsewhere. Taken as a whole *ábí* cultivation is even more intensive than *ch– áhí*, but it is less valuable on the whole than the rich well cultivation of the Chhachh. A hundred acres of land bear 189 acres of crops. About three-quarters of the total *ábí* lands bear maize in the kharíf. Some cane and a little cotton are also grown. Maize is followed in the rabi by wheat and barley, the former predominating. Tobacco is also grown. The rabi sown area is always in excess of that of the kharíf. The *ábí* of the Sarwála circle is inferior. There is much less cane and wheat, and more cotton, barley and "other rabi" crops.

Nahri. Nahri lands are confined to Attock Tahsíl, and within the tahsil to the north-east corner of the Nálá circle, the water being derived almost entirely from the Haro. The channels have their head for the most part in the Haripur Tahsil of Hazara, and the Attock landowners are dependent to a large extent on the goodwill of the Ghakkar family of Khanpur for their supply. It is

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alleged that this goodwill has sometimes to be paid for in hard cash. The cropping is of very moderate quality. Though over one-fifth of the area is classed as dofasli 100 acres of nahri land on the average bear only 94 acres of crops in the year. The water-supply is not certain nor always abundant. The chief kharíf crop is maize, which covers about one-third of the total area. Cotton and fodder crops are other kharíf crops. In the rabi wheat is sown to the same extent as maize in the kharíf. Barley is also a common crop, and oilseeds also are grown. The kharíf and rabi areas are about equal. The nahri estates possess one great advantage over the purely *báráni* villages, in that they never lack fodder. Maize, straw and *chari* are always available in the cold weather.

Sailáb.

Sáilab is of importance only in Attock Tahsíl and in the Sil Soan. The Attock *sailáb* is of the two types already noticed, the chel *sailáb* of the Sarwála, and the Haro *sailáb* of the Nala. In the Sil Soan the *sailáb* known locally as *mal*, is all good land, well ploughed and tilled. Wheat is far the principal crop, and the area under rabi crops is nearly double that under kharíf crops. In the hot weather much of the *sailáb* is liable to flooding, and cannot grow any crop. Over half the kharíf area is occupied by bájra. The rotation always begins with the rabi, and the first crop is nearly always wheat, less often barley. A kharíf crop of bájra, or of jowar, or of pulses may be taken afterwards in the stalks of the wheat, but there is no certainty. If a kharíf crop is taken after the rabi, the land lies fallow for a year, but otherwise another rabi crop is taken in the next year. In the best Sil Soan lands eight or ten ploughings are given during the summer months, and the land receives much attention.

The Chel *sailáb* lands are devoted chiefly to kharíf cultivation. Less than a quarter is under rabi crops. The chief crop is *chari* which on an average covers about 68 per cent of the total *sailáb* area. A little maize is also grown. The chief rabi crop is wheat, and the only other crop of importance is barley. On the Nala *sailáb* lands the kharíf is in excess of the rabi, but the disparity is not so great as in the Sarwála. The chief kharíf crops are maize and *bájra* which are of almost equal importance. Wheat is the predominating rabi crop, though there is also a little barley. Only a small proportion of the Nálá *sailáb* is double cropped. A hundred acres of land yield on an average 108 acres of crops.

Tallagang. Unirrigated lands

In the villages round about Tallagang itself, and in the Bhattí estates in the south-east corner of that tahsíl, the system of cropping is the two-year course—rabi, then kharíf, then 13 months' ploughing: if this system were fully adhered to the area cropped in each harvest would be nearly the same, but in fact about two-thirds of the total crops are taken in the rabi. Apart from the fact that much of the newly broken *rakkar* land cannot grow anything but an inferior rabi crop and that the deep

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embanked lands, from their liability to injurious floodings in the rains, are generally reserved for the same harvest, the zamíndár always has a tendency, when conditions suit, to put as much land as possible under rabi crops, as being the most remunerative; while it is not uncommon, especially when the kharíf does badly, to put the land in the following rabi under *tárámíra*; or less frequently barley, or *sarson*.

In Tallagang it is in the villages where the soil and rainfall are rather better than elsewhere and the cultivation more careful, that the two-year course obtains; but throughout the rest of the tahsil the rabi and kharíf lands are separate; the naturally manured lands immediately around the villages, where good, produce both crops, though not year after year; and the very best embanked land is also capable of doing so, though generally reserved for the wheat crop, as in Chakwál; but in the *maira*, which forms the great bulk of the land, the distinction between rabi and kharíf is clearly marked. In these undulating plains between the ravines the light sandy land (*parálián*) in the higher parts dries up too quickly to mature a crop under the August sun, and is necessarily reserved for wheat or gram; the terraced lands in the hollows are heavier, and from their situation more moist than the rest, and on them a kharíf crop is taken; but as such land bears a very small proportion to the whole, the rabi exceeds the kharíf in the proportion of about three to one. The kharíf land, however, is, of course, quite capable of producing a rabi crop, and in years of drought, especially when the kharíf has failed, the usual system of cultivation is to a great extent abandoned. Drought apart, it often happens that the kharíf land and the cooler rabi land is given a change to the other harvest, for it is only the higher and sandier lands that can grow nothing but wheat or gram; and even these in very favourable circumstances may repay cultivation with *moth*.

In Lawa and in other parts of Tallagang, where the holdings of cultivators are large, the *budhí* system is employed, mainly on level stretches of kharíf land. There it is a common thing to find that a part of the kharíf land has been thrown out of cultivation as *budhí* or old. In these places the kharíf cultivation is rough, the land is not sufficiently ploughed, and so after three successive kharíf crops becomes a good deal choked with weeds. The cultivator under such circumstances will keep only half his kharíf lands under cultivation, the other half lying fallow. After every three years the two halves are changed. The drainage of the half left fallow is carefully conducted by little surface channels on to the portion under cultivation. It is doubtful how far this practice is really necessary. It certainly has the advantage of giving to such crops as are grown a larger share by the rainfall than they would otherwise receive, and it seems to be principally resorted to where the holdings are large and the

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cultivation rough. It is not practised in the better cultivated villages of the tahsíl, though as regards soil and rainfall these are similarly situated to those in which the *budhí* system prevails. The practice, however, seems to be less widely adopted now than 20 years ago. It tends to disappear with increasing pressure on the soil.

Lipára.

The *lipára* cropping is quite different from that common in the adjoining District of Ráwalpindi. There the kharíf, generally bájra, is the principal crop of every year, while a rabi crop follows only now and then when early winter rains allow. With the exception of the Attock *lipára* land of this class in this District is suited for a different system of cultivation. Where the rainfall is very scanty manure only burns up *baráni* crops, and for the same reason the spring is more important than the autumn harvest on *lipára*. Only in the best villages of Fatteh Jang close to the Ráwalpindi border, and then only in the best land, does *bájra* precede wheat in the annual rotation. The course of cropping is the two-year course of a rabi followed by a kharíf and then a year's fallow. Three-fifths of the matured area is in the rabi, and the rabi is the valuable crop. A great deal of barley is grown in years of good rainfall, the manure in the soil allowing advantage to be taken of a favourable season, and the rotation to be broken without injury to the soil. There is always a reserve of fertility in manured soils upon which the *zamíndár* may draw when profit offers, and their capacity for cultivation out of turn in good years is one of their most valuable characteristics.

In Attock the cropping more nearly approaches the Ráwalpindi system. As a rule *lipára* lands bear only a single crop but a second crop is sometimes taken when the winter rains are sufficiently early to allow wheat, barley or sarshaf to be sown. In the Chhachh the *lipára* lands as a rule are poor, all the manure being upon the well lands. In the Sarwála also the *lipára* is not good, partly because there are wells in a good many villages, and partly because the soil is too light to be benefited by manure except where there is an exceptionally good rainfall. In Nálá the *lipára* is better, but here again in the purely *baráni* villages the farming is poor, holdings are large, and the cultivator often prefers to take only one crop from his *lipára*. Rabi crops are 52 per cent and kharíf 48 per cent. The rabi crops are wheat and barley in about equal amounts. Bájra is by far the principal kharíf crop and is indeed the principal crop of the year. About a quarter of the kharíf cultivation is maize. A little sarshaf is grown in the rabi, and some jowar and moth in the kharíf.

Las.

Las lands, as noted above, are of two kinds. The Chhachh *las*, which is enriched by the Gandgarh spill, is sometimes double cropped, but this is not the rule. Of the cropped area 59 per cent is under rabi, and 41 under kharíf crops. If the land does not bear two crops in the year, it will ordinarily bear a wheat crop year after year, or a wheat crop followed by one of moth, or chárrí, in the

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same year, and then remain fallow for a year. About a third of the kharíf crop is maize, which shows the excellent nature of the land. Mash and mung and moth are also important crops. There is also some jowar. In the rabi barley is completely overshadowed by wheat. The other kind of *las* is found in embanked fields only, and is less valued than the Chhachh *las.* South of the Kala Chitta the embanking of lands gets more and more valuable, the further west the village lies. In parts of the Sil Soan and in Makhad large embankments built across ravines are found, behind which silt is brought down and deposited, until a valuable field forms where before was nothing but stones and rock. In Makhad ilaka these embankments are often the investments of savings made during a long military service. Fields of this kind are meant to grow wheat, and ordinarily grow wheat every year. The best *las* lands are kept for the rabi and ordinarily they are more valuable than any other *baráni* lands, except the best *lipára* lying round village sites.

In Attock Tahsil the cropping is different. Most of the *las* lands are cultivated on the *dofaslí dosála* system, *viz.*, wheat followed by bájra or moth, and then a year's fallow: but there is a considerable amount of *ekfaslí harsála* land. The rabi and the kharíf croppings are nearly equal. Over eighty per cent of the rabi crop is wheat, and in the rabi bájra covers almost the same proportion. The *las* lands of Nálá are superior to those in Sarwála, and the former alone grow maize in the kharíf.

Maira.

The cropping on *maira* depends on the rainfall and on the coolness or warmth of the soil. Everywhere the kharíf is uncertain and there is a strong tendency to keep land for the rabi to the exclusion of the kharíf. In the west rainfall is more important than soil, the worst soil in a good year being more valuable than the best in a bad year. The light soil of the Jandál, into which a horse sinks up to his fetlocks, is the most productive soil in the tahsil, and is accounted better than the good light loams found in a few villages near the Chakwal border. The preponderance of rabi over kharíf crops is very marked, so that it may be said that the two-year course of cropping is the exception and not the rule. The rainfall is the predominant factor in determining the course of cropping, and no system of regular rotation is necessary when it is certain that drought will necessitate involuntary fallowing every second or third year. The lands growing kharíf crops are generally good embanked or sheltered lands, which can resist the glare of the summer sun, but kharíf crops are ordinarily grown only after a rabi crop has been taken off the ground. The rabi is the valuable crop, which pays the revenue and reduces the load of debt; the kharíf crop provides food for the cultivator, and keeps the cattle alive.

In the east the cropping on *maira* is the cropping on other *baráni* soils with a tendency to favour the rabi in preference to the kharíf. Three-fifths of the *maira* crops in Fatteh Jang and

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seven-tenths in Pindigheb belong to the rabi harvest. The Attock proportions are 64 and 36 per cent. There the poor sandy *maira* of the Sarwála can grow rabi crops alone with any certainty. The winter rains are much heavier in proportion than those of the summer; and wheat or gram once germinated can be expected to give a crop. It is otherwise with the kharíf harvest. A lengthy break in the rains generally proves fatal to the crops on these soils. Under such conditions it is only natural that rabi crops should be preferred to kharíf, and that there should be annually a large area of bare fallow. Similarly the sandy, stony *maira* of Indus bank villages is only cultivated with rabi crops. Generally in the better parts of the District the system of cultivation is the "dofaslí-dosala" system. Elsewhere the cropping is almost solely in the rabi, but a kharíf crop is snatched whenever the rainfall allows. Favourable rain is the main factor in determining what crop is to be sown. Wheat is everywhere the important crop. Gram is important in the Jandál of Pindigheb and the Sarwála of Attock. In the Jandál, though wheat covers a larger area than gram, the latter is the important crop, for the wheat is very poor, thin and ragged. *Bájra* is the autumn staple. It is not grown in the Chhachh, its place being taken by moth and mung. In Sarwála also the proportion of moth is very large.

When rain falls in September tárámíra is sown among the bájra especially when the *bájra* is a failure, so much so that in years of good winter rain the whole country is covered with *tárámíra*, most of which is sown, but much of which springs up like weeds from the seeds of previous years. In good years the *tárámíra* grows thick by the roadside, on the housetops and even among the ballast on the railway lines. A thrifty habit is the sowing of *tárámírá* and mustard on the field banks, thereby securing a crop return even from the land occupied by these banks. In the nalas of both Fatteh Jang and Attock the fertile limestone soil responds quickly to rain and the area under *bájra* and oilseeds is greater than elsewhere.

In a country of this kind ploughing is not so important as further east, and the soil does not receive the constant labour of tilth that is the custom in the Pothwar. Three or four ploughings are considered enough for wheat, except in the Sil Soan, and it is seldom that the cultivator finds time for more. The amount of seed used per acre is fully one-quarter less than in the Pothwar, for the dry, thirsty land cannot support the heavy crops of more rainy tracts. It will indeed be found that in all tracts the ratio of the outturn to the seed varies much less on different soils than the outturns vary, a poor soil with a poor average outturn being always accompanied by a low seed demand.

Rakkar.

Rakkar land is very bad *maira*. In the western tracts where rainfall is more important than soil, the distinction between *rakkar* and *maira* is very small. In cultivation there is very little differ-

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ence. *Rakkar* receives less attention, and is less adapted to the growth of kharíf crops than *maira*. Rabi crops mostly are grown on *rakkar*: chiefly wheat and *tárámíra*. About half the area is under wheat. A great deal of the *rakkar* land is not cultivated every year.

Agricultural operations.

In the various months of the year the cultivator's time is taken up as follows:—

In January, from 15th Mágh, he commences ploughing for the next autumn and the following spring harvests, and takes on his agricultural servants.

Ploughing goes on for the next month also, and by the end of it some of the *sarson* and young wheat is ready to be cut for fodder.

In Chet (March) ploughing still goes on, and melons and pumpkins and cotton are sown.

In Baisákh (April) ploughing proceeds; *moth* is sown, and *sarson* and *tárámíra* are cut as well as barley and gram, and in the hotter tracts some of the wheat.

In Jeth (May) some ploughing is done, and the wheat is cut, and some of it garnered.

In Hár (June) some ploughing is done, and the remainder of the wheat threshed and garnered, and, except in manured lands, maize, *bájra*, *jowár*, and *mung* are sown.

In Sáwan (July) much ploughing is done, and the manured fields are sown with maize, *bájra*, etc.

In Bhádon (August) much ploughing for the ensuing spring harvest is done, and ploughing is done between the stalks of growing crops of *bájra*, *makki*, etc., and green grass is brought in for the cattle.

In Asúj (September) wheat, gram, *sarson*, and other spring crops are sown, and much of the *bájra*, *makki*, and *jowár* is cut.

In Kátak (October) sowing for the spring harvest still goes on, and the *moth*, *mung* and *másh*, hemp and similar crops are cut and garnered.

In Maghar (November), should rain fall seasonably, the *Lipára* lands which have just yielded an autumn crop, are sown with spring crops.

In Poh (December) there is little field work done. Hemp is picked and daily labour frequently undertaken.

Sowings.

The time of sowing the winter crops is a little later than in Ráwalpindi Tahsíl so that the plants may not come up till they are ready to withstand drought. It is remarkable how late sowings can take place. Rain in the beginning of January is not too late for the winter crop. *Lipára* is always the last to be sown in the

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rabi and barley is then a very favourite crop. All kharíf sowings are broadcast, and, except in irrigated lands, all rabi sowings are by drill (nálí), a hollow bamboo attached to the plough share by the handle, and fitted with a wide wooden mouth which is kept supplied with seed by the ploughman. After sowing the field is levelled by the *soh́ágá*, a heavy flat beam drawn over it by bullocks, the driver standing on the log to increase its weight. The *soh́ágá* is more usually called *majh* or *maira*.

Ploughing.

Bullocks are almost invariably used for ploughing, but where cattle are scarce, as in parts of Tallagang, cows are used, even cows in milk. Generally the land does not get nearly so many ploughings as are usual in other Districts. In the light, hot soils, which are so common in the District, anything but very light ploughing does not seem to pay. The extreme is reached in some parts of Tallagang, where in the sandiest soils there is no ploughing previous to that with which the seed is sown. In addition, at least south of the Kala Chitta, the cultivated area per plough is so large that a great number of ploughings cannot be given. But the value of fallow ploughings is fairly well understood. On the better *báráni* soils as many ploughings are given as the cultivator can find time for. A good farmer will often turn over the soil as many as ten or twelve times. The depth of the furrow varies on different kinds of soil, the heavier soils requiring deeper ploughing than the light soils. The furrow is rarely over six inches deep. A field is ploughed from the outside in. The furrow always turns counter-clockwise, so that the right-hand bullock should be the stronger of the two as he has more turning to do.

Manuring.

The manure used consists of house-refuse, cattle-dung, the droppings of sheep and goats, old straw which has mildewed or rotted from keeping, ashes and earth-salts. The fields lying near the homestead, which is usually raised above the surrounding soil, get manured by natural drainage and as a result of the habits of the people. Fields at a distance are artificially manured, the manure being carried to the fields, distributed over them, and then ploughed in. The droppings of sheep and goats are considered the most fertilising of all manures. Wherever there are irrigated lands they get the bulk of the available manure. The manure is thrown out on the ground first out of sacks, is then spread over it with the *phio* or wooden spade, and is then ploughed before the crop is sown. Manure is also put into fields when the crop has come up. In the case of sugarcane and melons, ashes and *kallar* are used in this way.

The importance attached to manuring varies throughout the District. In Attock Tahsil, especially in the Chhachh, the cry everywhere is manure. The lack of manure is the only bar to the extension of well cultivation. In the dry parts of Fatteh

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Jang and Pindigheb, the available manure is used, but except when the rains are unusually favourable it is not considered of much value. The people say that manure in very dry seasons only burns up the crop.

In the east of Tallagang manure is used, not indeed with the same care as in Attock; but in the hotter and drier parts of the tahsil, manure, except so far as needed for the wells, is treated as so much dirt thrown down the cliff or hillock on which the village generally stands, to be washed away in time into the torrent bed below. In these dry and thirsty soils manure is said to burn up the crop, and no doubt it does have a bad effect; its heating effect is recognised even in the cooler parts of the tract, it being considered dangerous to manure the kharíf crops in dry land, as the heat they have to withstand is so great: and there is little need to do so, as the effect of manure put on in the rabi continues over the next harvest at least, even on the light sandy soils where it is most evanescent. Nevertheless, the fact remains that here and there one finds a thrifty village which manages to use its available manure by putting it on the right kind of land, so the cause of the waste seems to be partly laziness; one would think that the dung would be used for fuel if for nothing else, especially as firewood is by no means plentiful, but even this use is seldom made of it.

The best irrigated lands in the Chhachh get 300 maunds of manure per acre per annum. On the sugarcane lands in the immediate neighbourhood of Hazro, however, 600 to 700 maunds of manure per acre is put into the soil. Other irrigated lands get from 150 to 250 maunds.

Unirrigated *lipára* lands get from 80 to 100 maunds per acre in the year in which they are manured, but no very accurate average can be struck, as the amount of manure available for any particular field varies very much according to the circumstances, the number of cattle possessed by the owner, the distance of the fields from the homestead, and the nature of the crop intended to be sown, all affecting the question.

Weeding

Hand weeding is never done except on wells, though certain weeds useful as fodder or otherwise are collected in their season. The only weeding done on rain lands is when in August bájra, cotton and the other kharíf crops are ploughed over after good rain to thin them and open out the ground. Of this operation, which is known as *síl*, it is said that it ought to be done by an enemy, for the benefit derived from it is in proportion to the violence with which the crop is treated.

Reaping.

Reaping of grain crops is done with the *dántri* or sickle. Ratooning cotton is also cut with the sickle, but when it is desired to rotate the crop, the cotton roots are dug out with the spade.

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Threshing and winnowing.

The grain, in the case of spring crops such as wheat and barley, is threshed out by means of large bundles of thorns, which are weighted with stones *(phála)* and dragged over the grain by cattle driven round and round as it lies on the threshing-floor (*khalára*). The threshing-floor is a small space in one part of the field carefully levelled and then moistened and pressed down by the feet of flocks of sheep driven over it, after which some crop of little value is first threshed on it and after it has been thus cleansed, it is ready for more valuable crops.

The autumn crops are trodden out by the feet of cattle driven round and round on the threshing-floor, which is smaller than that used for spring crops. The grain which has been threshed out is next winnowed, as soon as a day occurs with sufficient wind to carry out the operation.

The winnowing is done first with the *tringáli* or pitch-fork, and then with the *phio*, a flat spade-shaped instrument, and consists simply in throwing the grain and chaff straight into the air; the wind blows away the light chaff, the grain falling back on to the heap. The *chhaj*, or winnowing basket, is not used much for sifting grain. *Bájra* is the crop in connection with which it is most commonly employed.

After the winnowing is complete, if the crop has been grown by a tenant, the owner's and tenant's shares are separated off at the threshing-floor, and the dues of the village artizans are paid at the same time. The owners of the crop are usually at this time also much pestered by beggars, to whom it is the practice to give small portions of the grain and straw.

Embanking.

In all tahsils embanking is of much importance. Large embankments are constructed by calling in all the neighbours to help. The smaller embankments are made by the cultivator himself, sometimes with the aid of hired labour. Embanking and levelling are done with the *karráh*, a large wooden shovel drawn by bullocks and held by the owner. Beginning at the top of the field the peasant drives his oxen towards the lower end, holding the *karráh* down so that it gets filled with earth. At the lower end the *karráh* is lifted, and the earth deposited on the embankment. The process both levels the field and raises an embankment at the lower end which retains the drainage water.

Agricultural implements.

Agricultural implements are of the usual types. The ploughs (*hal*) are light and similar to those used in other parts of the Punjab. There is no tendency to replace them by any other. The ploughshare (*kur*) is a strong flat piece of wood, broad at the back and centre, but gradually tapering to a point, called *phalá*. Into the middle of this fits the shaft (*hal*), from which it takes its name. The woodwork of the plough is usually of olive, *phulah*, *kíkar*, *khair* or *shísham*.

Other implements used in agricultural pursuits in this District are—

Panjáli or *jot* (yoke), made usually of light wood, Persian lilac or bamboo, for yoking oxen to the plough or harrow.

Nári (traces) of leather, for attaching the yoke to the plough, etc.

Trat (whip), a whip with wooden handle and leather lash for driving oxen. *Choka* (goad) of wood, with iron point. *Maira* or *majh* (harrow). This is a flat board, some ten inches broad and eight feet long. A pair of oxen is yoked to this, and the driver stands on the board and drives them over the field to level it before sowing after ploughing : usually made of *phula*, *tút* or pine wood.

Karrah (earth-board), a large flat board with teeth at the lower end. Drawn by bullocks, and used for levelling fields by dragging earth from higher portions on to the lower, made of various woods, *khair*, *phula* or *tút*; much used in this district.

Jandra or *jandri* (earth-board), similar to the *karrah*, but smaller and drawn by hand instead of bullocks. Requires two men to work it, one to hold it down, the other to drag it.

Khopa (blinkers), coverings placed over the eyes of bullocks or buffaloes when working Persian wheels.

Chhikka or *topa* (muzzle), made of string, placed over the noses of cattle to prevent their eating the crops; also used to prevent calves from sucking.

Nali (seed pipe), a pipe, headed by a cup, attached to the back of the plough, through which the seed is allowed to fall.

Trangar, open net for carrying straw or grass.

Ghománi or *ghomat* (sling), used for frightening birds, etc., off the crops.

Manna (platform), a high platform, with bed of string, placed in the fields when the crops are ripening for the watchers to sit upon.

Phála, a bundle of thorny branches pressed together and loaded with stones, dragged by bullocks over the crops to break the husks and chop up the straw.

Tringli (pitch-fork), used for throwing up the mixed grain and chaff into the air to separate them.

Phio, a flat spade, used for throwing the grain into the air after it has been already sifted by the *tringli*, to further divide off the actual grain from chaff and dust. The blade is usually made of *shísham* carefully planed, the handle of bamboo or light wood.

Chhaj (winnowing basket), shovel-shaped basket, the smaller kind is used for winnowing grain, the larger for sifting refuse.

Salanga or *satánga* (pitch-fork with two prongs), a rough wooden pitch-fork, chiefly used for lifting bundles of thorns in making thorn hedges.

Kandáli or *kundala* (for digging holes), shaped like a straight narrow spade, made of wood with iron blade.

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Kahi (spade), a spade with blade at right angles to the handle.

Kohári, kulhári (axe).

Dántri or *daráti* (sickle), sickle for cutting crops, etc.

Ramba or *khurpa* (trowel), this is a small trowel or hoe, with a short handle.

Tokra (basket), a large basket for carrying manure.

Bora, open sack of rough rope for carrying manure, earth, etc., on beasts of burden.

There is little sugarcane grown in this District, except in Chhachh. The old sugar-mill or *kohlu* is not met with; the Behea sugar-mill being almost universally employed. Those zamíndárs who grow sugarcane, but have no mills of their own, hire those of their neighbours at one rupee per day of 24 hours.

Oil-mills, known as *ghání*, are used to express oil from *sarson*, *tárâmíra* and other oil-seeds. These are constructed of wood, usually of *shísham, tút* or *phulai*, and consist of a circular receptacle of wood, made strong and bound at the top with iron, in which the grain to be crushed is placed. At the bottom of this is a small outlet for the oil to escape.

In the centre of the receptacle a heavy wooden crusher revolves, being yoked by a beam at right angles to itself to an ox or buffalo. The horizontal beam is weighted with stones, and as the animal paces slowly round, grain is pressed between the vertical crusher and the sides of the circular receptacle, the oil is squeezed out and escapes below. This is the usual form found throughout the Province, and it is to be met with in nearly every village in the District. It costs about Rs. 35 to make on the average. It is still occasionally but very rarely used for pressing sugarcane; the *belna* or Behea sugar-mill being now commonly employed.

Rotation of crops.

The account given of cropping on various classes of soils will have shown to what extent rotation of crops is practised. The *dofaslí-dosála* system is, when strictly adhered to, essentially a system of rotation. Where the other system prevails the rabi land usually bears wheat year after year, varied every third or fourth year in Tallagang by a crop of gram put in to rest the soil which its nitrogen producing properties enable it to do. But a long succession of gram crops is also considered harmful, and is varied by wheat now and again. The rotation of crops of well lands is strictly observed. But beyond this no special attention is paid to rotation. Certain crops are, however, supposed to do particularly well following certain other crops, as, for instance, wheat after *moth*, and gram after cotton.

General Remarks.

The following general remarks on the standard of cultivation are quoted from the Settlement Reports of Tallagang and Fatteh Jang and Pindigheb.

Tallagang.

Mr. Talbot wrote:—

"Much of the slovenliness of cultivation which strikes one at first sight is more apparent than real: the kharíf land, for instance,

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in many parts of Tallagang and elsewhere has a very slipshod appearance, being thickly studded with clumps of grass and brushwood, the latter chiefly the dwarf *ber*: these are carefully avoided in ploughing, for the grass, of course, is useful, and the shrubs, cut down every winter, yield firewood, and in addition their leaves dried and separated from the stems provide a most valuable fodder, which in some villages is sold to great advantage. On the whole, as observed by Colonel Wace in paragraph 49 of his Assessment Report, the agriculture of the tract, rough as it is, is well adapted to its circumstances, and its methods are often the necessary consequence of the largeness of the areas dealt with: improvement seems certainly possible, in the fuller use of manure, and greater attention to weeding—where needed (which it hardly is on the sandier soils)—and, more important than either, in the gradual levelling up and terracing of the sloping *maira* land, in which respect much might be done. Gradual improvement is no doubt taking place in this direction and will continue to be effected as population becomes denser, and the supply of new land for cultivation begins to fall."

Pindigheb and Fatteh Jang. General aspect of the cultivation.

About Pindigheb and Fatteh Jang Mr. Kitchin wrote :—

"The cultivated area per plough is so large that the same amount of ploughing cannot be given as in the Rávalpindi District. Generally there is more land than cultivators, and the cultivation being in the hands of tenants they have not the same inducement to careful plodding labour as have peasant owners. The well cultivation in the Sil Soan and the cultivation of the best *báráni* lands in that circle is as good as could be desired, but with that exception the cultivation falls far short of perfection. Many of the owners are hard on their tenants, especially the owners who are themselves weak and impoverished, and there is small advantage in labour when the fruit of the toil is carried off by another man. In very few villages are the tenants numerous enough to do full justice to the land.

The cultivation gets more and more careless towards the west as the fields get larger and the climate drier, until in Makhad the cultivation is very slovenly. The Pathans of Makhad are not bad cultivators, but they have not the patience to continually plough and embank the same field, so they prefer to keep large areas under cultivation and by changing from field to field they get the same total produce which a closer cultivator could get off a much smaller area. The Pathan sepoy when he comes on pension invests his savings in a huge embankment, while he sits down to enjoy the produce of his labour. The Awans of the Awan tract of Pindigheb are fair but not good cultivators, and have something of the slovenly ways of the Pathan. Khattars everywhere are bad, Jodhras, when they cultivate themselves, are little better, while the Gheba still finds his occupation in driving tenants and is seldom reduced to working himself.

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Among the tenants and among owners there is still a great deal of co-operation, and the custom of calling in all the neighbours to help in embankments, or in any special work still prevails, the cost of feeding them being the only cost involved. The large owners all claim the right to call out their tenantry whenever they think fit, and this right wisely exercised is of great use in breaking up new lands, or in improving old lands."

Population engaged in agriculture.

Practically the whole population resident in the villages and a large proportion of the urban population is either engaged in or dependent on agriculture. The proportion of the population which is actually engaged in cultivation is 66 per cent.

Agricultural labourers.

The demand for labour is considerable only at harvest time, especially at spring harvest. The chief source of supply is the menial classes, who join in all the harvesting operations, and also assist when any special work is undertaken. Men of the agricultural tribes and Kashmiri and Pathan immigrants are also available. The latter enter in the District in time for the autumn harvest and stay out the winter. They are often employed in the construction of embankments. During the hot weather there is little demand for labour, and indeed a portion of the agricultural population is accustomed at that time of year to seek employment elsewhere. But especially at the rabi harvest outside labour has generally to be employed, for the cultivating holdings are too large for the tenants to reap all the crop themselves when the harvest is at all good. The expense is not great, for there are always plenty of people who work for their food only, and the tenants help one another.

Principal crops.

The following table gives the percentage of the area harvested of each of the principal crops on the total crops harvested :—

	District.	ATTOCK.				Pindigheb.	Fatteh Jang.	Tallagang.
		Chhachh.	Sarwála.	Nala.	Tahsil.			
Kharif.								
Sugarcane	·2	2·8	·2	·1	1·1	...	...	...
Bájra	17·4	1·1	4·2	21·1	9·6	20	29	13
Maize	3·	11·2	2·7	10·5	8·7	1	3	...
Jowár	3·9	4·3	3·1	3·2	3·6	4	3	5
Pulses	4·6	1·2	2·6	1·3	4·8	3	4	6
Cotton	2·7	1·6	·4	2·6	1·7	2	2	4
Others	0·7	·4	·2	·1	·2	1	1	1
Total Kharif ...	32·5	31·6	13·4	38·9	29·7	31	42	29
Rabi.								
Wheat	45·3	41·3	52·4	37·1	42·6	43	42	51
Barley	3·7	8·1	6·2	6·7	7·1	4	4	1
Gram	10·	8·5	20·6	2·6	9·4	14	1	14
Oilseeds	7·	2·7	5·5	13·2	7·5	7	9	4
Tobacco	·4	3·4	·7	·4	1·6	...	...	...1
Others	1·1	4·4	1·2	1·1	2·1	1	2	
Total Rabi ...	67·5	68·4	86·6	61·1	70·3	69	58	71

The rabi is the important crop. 67·5 per cent of the crops are harvested in the rabi and 32·5 per cent in the kharíf. Wheat is by far the most important crop and amounts to 45·3 per cent of the whole. Bájra is next in importance with 17·4 per cent, and gram and oilseeds come next.

Rabi crops.

Wheat is the principal crop of the year in every circle, and is the principal source of prosperity. In Tallagang and the Attock Sarwála it occupies more than half of the harvested area. It is grown on every class of soil, but in the Chhachh is displaced on well lands by sugarcane and tobacco, and is of comparatively slight importance on the irrigated lands in Tallagang, where barley largely takes its place. Both wheat and barley are, when irrigated, valued chiefly as fodder. The latter can be cut over more frequently and yields more heavily than the former. Wheat is nearly always sown in fallow land, as the first of the two consecutive crops taken in the two years' cycle, and is not sown after a kharíf crop even in *lipára* soil. In the rich double cropped lands of Attock Tahsíl the kharíf maize is usually followed by barley, but in the Nálá the maize crop is often off the ground early enough to allow wheat to be sown. Ploughings usually begin after the Christmas rains, and go on as occasion permits more or less until the crop is sown. Heavy rains are desirable in August and September before sowings. The best time for sowing is early in October, but if there is not enough moisture at that time the crop may be sown up to the end of December or even in January, but in the latter case very good rains are required through the spring to bring on the crop. When a kharíf crop has already been taken off the land wheat is usually sown, if possible, in November. In some parts of the District, when the autumn crop has not been favourable, and it has not been possible to sow it before, wheat has occasionally been sown as late as the end of January or even the beginning of February, but this is done only under pressure of necessity and with very little prospect of success. Generally the *zamíndárs* think that they cannot have too much rain while the crop is in the ground. Of all crops it is the most tolerant of drought provided that there is plenty of moisture in the ground to give it a good start at the outset. Rains in Chet (March), however, are much prized, the people having a proverb to the effect—

Rabi Crops— *Wheat.*	Per cent.
Attock Tahsíl—	
Chhachh	41
Sarwála	52
Nala	37
Fatteh Jang Tahsil ...	42
Nálá	40
Gheb	41
Sil Soan	44
Pindigheb Tahsíl	43
Jandal	43
Makhad	44
Sil	43
Tallagang Tahsíl	51
District	45·3

Wasse Chetar
Na ghar meve na khetar,
or
Wasse Chet,
Na khál mitte na khet.

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the meaning being that there is no room anywhere for the grain when rain falls in March. After the crop is sown it requires little or no attention. On irrigated land it is generally weeded to some extent, the commonest weed being the *piázi* or wild leek. On such land and also on the best baráni lands, if the crop promises to be a heavy one, it is cut over for fodder, or grazed down when a fair height, and afterwards grows up and yields a normal crop.

The crop ripens in April. Reaping begins in the end of that month, but may be much later if sowings were late. The wheat grain is almost all the ordinary red bearded Gujar Khán variety, known locally as *lohi*, *rattar* or *ratti*. The soft white beardless variety, known as *dágar*, is also grown, but although it yields better and ripens earlier it is more easily withered by drought, and the grain is not so valuable. Beardless red wheat (*rodi*) is very little sown. *Sarson* (mustard) and *tárámíra* are in many parts of the District often grown with the wheat, but they are never allowed to ripen, being taken out early in the year for fodder and other purposes. It was at one time supposed that this practice rendered the wheat more liable to rust (*kummi*), but careful enquiries made on this point did not bear out the assumption. Other mixtures with wheat are not common.

Rust and hailstorms in spring are the greatest dangers to which the wheat crops of the District are exposed. Rust, known as *kummi* or *kungi*, is the result of damp cloudy weather. Rain alone does not appear to produce it, unless accompanied and followed by heavy damp close weather. If the weather between the showers of rain is bright and wind springs up, the tendency to rust is dissipated, and it is wonderful to see how much good a few clear fresh days will do even to crops which have already begun to rust, provided the mischief has not gone too far.

Barley.

Barley is a valuable crop on irrigated and manured soils, but its importance in the whole District is small. On the well lands of Attock Tahsíl it is twice as important as wheat. It is usually considered to do after maize much better than wheat, but the best cultivators of the Sil Soan prefer wheat. In the southern parts of the

	Per cent.
Attock Tahsíl	7·1
Chhachh	8·1
Sarwála	6·2
Nálá	6·7
Fatteh Jang Tahsíl	4
Nala	5
Gheb	4
Sil Soan	4
Pindigheb Tahsíl	4
Jandál	2
Makhad	3
Sil	4
Tallagang Tahsíl	1
District	3·7

District, as in horse-owning villages, there is a brisk demand for fodder, the crop is a very profitable one, and is mainly cut green for fodder. The cultivator may, for instance, sell one cut at Rs. 2 per *kanál*, cut the crop over once himself for his cattle, and at last, ripening the crop, may get as much as 10 or 12 maunds of grain to the acre. If he sells the standing crop outright he can

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get Rs. 5 or Rs 6 per *kanál*, or even more than that. In favourable circumstances the crop can be cut over three or four times.

Barley can be sown much later than wheat, and ripens earlier. In years of heavy winter rain the area under barley always shows a large increase. The crop is usually reaped in April and May, and is garnered generally by the end of June, or early in July. In years of pressure or distress, barley is sometimes cut in March, and the grain, though not absolutely ripe, can then be eaten. Generally speaking the yield of barley is always larger than that of wheat, though of course the grain is much less valuable. It is always grown alone, and, like the wheat, is of good quality.

Gram.

Gram (*chhola*) is pre-eminently the crop of the sandy villages of the Jandál and the Sarwála. In Fatteh Jang it is grown only here and there on sandy soils. Elsewhere it is grown, never on any soil but *maira*, wherever the soil is light. In consequence it is an important crop in Tallagang, for the light soils and the scanty rainfall of that tahsil exactly suits this crop. Gram followed by wheat is the characteristic rotation of the Jandál. The gram grown is almost all the common sort, with here and there a little of the white *kabulí* variety, known locally as *roda*. Sowings take place in October, and the crop is cut in April. The growing plant is an important article of diet, the tender shoots for some two months every year being plucked and eaten as a vegetable. At this stage the crop is almost public property, outsiders being allowed to help themselves freely. The plants profit by the pruning which they undergo, and also by being grazed over when young by sheep and goats. It is accounted a more valuable crop than wheat, but it is a delicate crop, suffering from drought and from excessive rain, from wind or from frost. Even cloud is said to have a blighting effect. When all the elements are favourable the yield from gram is double that of wheat. It would be a very popular crop if it were not so uncertain, but a good gram crop comes only now and then, and a season which may suit wheat may be disastrous to gram. As a food-grain gram is consumed only by the very poorest.

	Per cent.
Attock Tahsíl ...	9·4
Chhachh ...	8·5
Sarwála ...	20 6
Nala ...	2 6
Fatteh Jang Tahsíl	1
Nala ...	1
Gheb ...	1
Sil Soan ...	1
Pindigheb Tahsíl	14
Jandál ...	32
Makhad ...	11
Sil ...	8
Tallagang Tahsíl	14
District ...	10

Oilseeds.

Nearly all the oilseeds, which comprise seven per cent of the total crops harvested, are *táràmíra* (*Eruca sativa*), usually but inaccurately called rape.

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Táráníra.

Táráníra is one of the three important rabi crops, and in Fatteh Jang and the Attock Nala ranks after wheat alone. It needs no cultivation, the seed is cheap, and the crop will grow on any land. It is grown almost exclusively on the most inferior kinds of unirrigated land, much of the poorest *rakkar*

	Per cent.
Attock Tahsíl	6·6
Chhachh	2·5
Sarwála	5·1
Nálá	11·7
Fatteh Jang Tahsíl	9
Nálá	16
Gheb	10
Sil Soan	6
Píndigheb Tahsíl	4
Jandál	7
Makhad	5
Sil	8
Tallagang Tahsil	4
District	6·6

being able to produce nothing more than a light *táráníra* crop, unless it be a very poor cotton. *Táráníra* is also sown along the edges of paths, over the ridges between fields, is dribbled in among the *bájra*, and is scattered broadcast about the fields whenever rain falls in November. The seed is cheap and the *zamíndár* who cannot afford wheat seed can always afford *táráníra.* If the crop fails there is little loss, and if it succeeds the profit is large. It is a most useful crop. Like gram it is used as a vegetable when green. A good deal is also consumed for fodder. It is the favourite food of camels. But the bulk of the crop is allowed to ripen, and a valuable oil extracted. The only objection to *táráníra* is that it is an exhausting crop, and is considered the most exhausting of all rabi crops. In a good year the *táráníra* pays the revenue of the whole year, and great quantities are exported. In Fatteh Jang itself there are a great many oil presses, and the oil stored in kerosine tins is sent in to Ráwalpindi and Gujar Khan for export. The oil for lighting purposes has now been superseded by kerosine, but it is considered very strengthening and healthy as an article of food, and in many ways takes the place of *ghí* for frying, etc. The outward application in plague and other cases is said to be very beneficial. The Kot estate makes a large income annually from this crop.

A remarkable characteristic of *táráníra* is its vitality. It is often self-sown. In years of good rainfall it springs up everywhere, even on the housetops, in the Kala Chitta Forest, and among the ballast on the railway lines. The real matured area can never be determined, and the recorded area can be considered only a very rough estimate. Taken all in all *táráníra* is probably a more important crop than even gram. It is generally called *zamáh.*

The only other oilseed of importance is *sarson*, or mustard (*Brassica campestris*). It is grown to any extent only in Attock Tahsíl, especially in the Nala, but even there it does not amount to 2 per cent of the total harvested area. When sown alone it is grown for oilseed. More commonly it is sown among the wheat for use as *ság* or vegetables or for fodder. It is sown in the end of September, and when allowed to ripen for oilseed is cut in the second

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half of April. Lands sown with wheat and *sarson* mixed have a very rich and pleasing appearance to the eye. Two varieties of *sarson*, the white known as *gorí* or *chitti*, and the black, or *kálí*, are in use.

Tobacco.

Tobacco is grown to any extent only in Attock Tahsil and only on irrigated lands. It is most common in the Chhachh. There are two kinds, that grown for snuff (*naswár*) in Hazro in the Chhachh and in eleven of the neighbouring villages, and the ordinary tobacco. Again the ordinary tobacco is of two kinds, that of the Chhachh being superior to that of the Sarwála and Nala circles. The snuff tobacco owes its excellence to the Gandgarh spills, which give an additional fertility to the heavily manured well lands round the town of Hazro. Tobacco is sown from 15th January to the end of February in small seed beds protected from frost and the cold north winds, by reed screens erected on one side of and overlapping the beds. When the season becomes warmer, and the seedlings are a few inches above the ground, they are planted out in plots. The crop is cut in the end of June. The best tobacco is made into snuff by the Kashmiris and Aroras of Hazro. Thence it is exported through the Lawrencepur station to other parts of the Punjab, especially Amritsar, and to Karachi. Snuff is also manufactured at Makhad and Pindigheb. The snuff habit is general in the District.

The very best wells, which are thoroughly commanded by the Gandgarh spills, yield about 40 maunds of produce; but this is unusual. The ordinary snuff growing land will yield about 32 maunds an acre, and an acre of ordinary tobacco about 24 maunds. The Sarwála and Nala yields are somewhat lower. Rs. 4 per maund for snuff tobacco and Rs. 2-8-0 per maund for ordinary tobacco are average rates. The price of tobacco is falling with the spread of cultivation.

Other rabi crops.

Vegetables, a little *alsi* and *massar* (*Ervum lens*) *methra* and melons make up the rest of the rabi crops. None of these crops are of any importance. Melons are grown to some extent in the Chhachh on the moist lands below the Gandgarh mountains. Safflower (kasumba) used to be cultivated, but has disappeared owing to the use of aniline dyes. *Methra* (*Trigonella fænugræcum*) is grown only in the Chhachh and is used for fodder.

Kharíf crops Bájra.

Except in the Chhachh *bájra* (*Penicillaria spicata*), the spiked millet, is everywhere the all-important autumn crop, though in Sarwála and the Jandál it is not one of the principal staples of the year. In Tallagang its importance is completely overshadowed by that of wheat. There the method of cultivation somewhat

	Per cent.
Attock	9·6
Chhachh	1·1
Sarwála	4·2
Nala	21·1
Fatteh Jang	29
Nala	30
Gheb	35
Sil Soan..	22
Pindigheb	20
Jandál	7
Makhad	28
Sil	23
Tallagang	13
District...	17·4

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resembles that in Ráwalpindi. It is sown on unirrigated land, doing particularly well on the manured lands around the village sites, on which it is probably grown more extensively than any other crop, even wheat. In Tallagang it is not, as a rule, cultivated on the *báráni I* land, where it is liable to injurious flooding, and it does but poorly, as a rule, on the ordinary *maira*. But the great *bájra*-growing tract is the country between the Soan and the Kala Chitta, including the Attock Nala. There the success of the agricultural year depends greatly on the *bájra* harvest, for the grain is the principal food of the people, and the stalks of the cattle. Failure of the *bájra* is not a disaster comparable to the failure of the wheat harvest, but it means a year of struggle and discomfort for the men and of positive distress for the cattle. To some extent *tárámíra* is an alternative crop to *bájra*, and is nearly always sown in the *bájra* fields, but it is not possible for both to prosper, and, if one is to fail it is far better that a good *bájra* crop should choke the *tárámíra* than that the *bájra* should wither in the ground, leaving the *tárámíra* to wait for the winter rain. In the Sil and Makhad circles *bájra* is an important irrigated crop, but only on the poor wells where maize will not grow. On such lands the yield of *bájra* is large, and the crop is fairly safe. On manured land *bájra* is grown not in fallow land but in land which has already grown a crop of wheat or barley. There are exceptions, however, for the rainfall is too uncertain for any definite course of rotation to be regularly followed, but the rule is that *bájra* is not sown in fallow land.

Sowings take place in the latter half of May and in June or after the first heavy rain of the monsoon, and the crop is cut in September and the first half of October. The seed is about 2 seers per acre sown broadcast. The best *bájra* is grown with the stalks well apart from each other, so that the plough can be run between in August when the operation called *síl*, described at page 143, is done.

A common agricultural proverb on the proper method of growing various crops runs as follows :—

Moth supattal
Til ghane
Dad trap jowár
Githon utte bájra
Dalanga utte bár

which signifies that *moth* should be grown with the plants at a distance from each other; *til* with them close together; *jowár* stalks at a frog's leap distance from each other; *bájra* stalks a span apart and cotton stalks separate one pace from each other.

When the crop is ripening great care is taken to protect this and other kharíf crops from birds, a platform (*manna*) of wood or

dried mud being erected, on which some one sits all day to guard the crops. The ears (*sitta*) are often plucked and roasted as soon as the grain forms. The average outturn is usually decidedly lower than that of wheat.

Maize (*Makki*).

South of the Kala Chitta maize is not grown at all except on irrigated land. In Tallagang it is almost entirely unknown, the average area under maize each year not exceeding 50 acres. In Fatteh Jang and Pindigheb it is much the most important crop of the year on irrigated lands. The cropping in the Sarwála is similar to that in Fatteh Jang.

	Per cent.
Attock	... 8·7
Chhachh	... 11·2
Sarwála	... 2·7
Nala	... 10·5
Fatteh Jang	... 3
Nala	... 3
Gheb	... 1
Sil Soan	... 6
Pindigheb	... 1
Jandál	... 1
Makhad	... ...
Sil	... 1
Tallagang	... ...
District	... 3

But in the rest of Attock Tahsil maize is grown to a considerable extent on *báráni* lands. It is, however, pre-eminently a crop for well lands. In *cháhí* lands of all kinds it is the favourite crop. It covers 75 per cent of the well land, 83 of the *ábí* and 71 per cent of the *nahri* in Attock Tahsil. The two varieties which are universally cultivated are the white and the yellow, called respectively *sufed* or *chitti* and *píli*. The Attock Tahsil is the only Tahsil in which the American variety is grown and locally known as *garma*, but must not be confused with that called *harami* or *mausam garma*, grown in Pindigheb.

The favourite crop to follow maize is barley. It is generally admitted that wheat does not do well alternated with Indian corn, but in the Attock Nala wheat after maize has become more popular.

In Fatteh Jang Tahsíl the wheat or barley (generally barley, but in this tahsil it is sometimes the custom to alternate wheat and maize) being reaped about the last day of April, the land is then left fallow for a month, in June the land is ploughed and manured, and after this, as soon as the rainfall comes, three or four times more. Sowing takes place from the 1st to the 15th August. If the rainfall is not opportune and the land irrigable, it is flooded seven days before sowing. In *cháhí* lands weekly waterings take place till the crop is matured. *Godi* is effected fortnightly; but if the rainfall is plentiful, ordinary weeding is substituted. The crop matures in about two and half months.

In the Attock Tahsil American corn is cultivated by the Malliárs of Sarwala and is sown in May to June and reaped in July to August. At this season the indigenous varieties cannot be cultivated. The land is ploughed three or four times and manured before sowing. If at the time of ploughing and before sowing time no manure is procurable, manuring is effected when the crop is about a foot high. If there is not an opportune rainfall, it is

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usual in irrigated lands to water before sowing. *Godi* is effected when the cob is half grown, and again when about a yard high, and when the crop is formed in irrigated lands, but in *báráni* lands furrowing (*sil*) is substituted for *godi* when the crop is eighteen inches high. Sowing of the native seed takes place from 23rd July to 2nd August.

The cobs form about the middle of October, and reach maturity at about the end of October. The stalk (*tánda*) is then cut and collected in heaps (*phassa*) and exposed for a fortnight to the sun. The cobs are then separated from the stalk and peeled; the white variety requires plenty of manure. *Dhanian* a sort of *masala*, is occasionally sown after the last *godi*, but then the crop is not succeeded by barley.

In Pindigheb tahsil maize is sown about the 11th of May, and reaches maturity about the 5th of August. Sometimes maize is again sown in the kharíf, ripening about the 12th December. When maize is alternated with wheat, the land is left fallow for a crop in between, *i.e.*, *ekfasli* system. When the wheat has been reaped, the land is watered and ploughed, and the yellow *makki*, called *garma*, sown. It is cleared about the 6th August. The system of sowing is as follows. The land is watered, and when the surface has caked it is ploughed and harrowed and the clods are smashed up; the land is then furrowed, and holes called *choka* are made with a *ramba*. Two or three seeds are dropped into each hole. *Godi* and the destruction of insects have to be regularly effected. The hot weather crop is always poor, and, as has been mentioned, good successive crops of wheat and *makki* are not generally obtained. Very often the hot weather crop of maize is succeeded by *bájra* in the kharíf; a plough with two cattle is worked by one man. Manuring is generally done before the cold weather crop of maize, and always before planting wheat or barley. This suffices for the whole year's course. Two or three days after the appearance of the crop, it is usual to water it, and *godi* is effected. Useless or poor plants are removed and given to the cattle. The hot weather crop matures about the 28th of August. The crop is then cut and collected in heaps (*phassa*). The seeds are allowed to dry in the skin, and the *phassa* is watched at night. When dry, the cobs are separated from the stalks, and after two or three days' more exposure, the seed is beaten from the core with clubs, and the best seed set apart for sowing. The grain is winnowed, and the core used for fuel and the stalks given to the cattle.

The Malliárs of Ikhlas grow a fine cob. Good land and good husbandry are both required.

The most successful cultivators of maize are the Malliárs or Aráíns, a most industrious class, and the best cultivators in the District. Their success is obtained by constant ploughing before sowing; assiduous attention to the crop by weeding, *godi;* and *sil;*

and care in the selection of seed. The finest seeds of the finest cobs are most carefully preserved for next year's sowing.

The Awáns are also successful cultivators of maize, and very nearly rival the Malliárs. Of course in maize cultivation, the amount of manure available, timely rainfall, and a judicious rotation of crops, are all most important factors; but what is required to improve the quality of the maize grown is a careful selection of seed by the cultivators, and the fostering care displayed by the Malliárs in bringing their crop to maturity.

Pulses.

Pulses are, at least in area, second in importance among the kharíf crops to *bájra* alone. They are *mung*, *moth* and *másh* (*Phaseoleus mungo*, *aconitifolius*, and *radiatus*). The last is not common. In Attock Tahsil *mung* is slightly more popular than *moth*, but south of the Kala Chitta the former is grown, in any quantities, only in the Sil Soan circle of Fatteh Jang Tahsil. Generally more *moth* is grown than *mung*, and especially in Pindigheb. These pulses are confined to the poorer rain lands. *Moth* in particular is an inferior crop grown in inferior land. They are nearly always grown as a mixture with *bájra*, *chari* or cotton, and are sown immediately after rain in April. They are easily grown and require little labour. In the Chhachh pulses take the place of *bájra* which is hardly grown at all.

	Per cent.
Attock	4·8
Chhachh	10·2
Sarwála	2·6
Nala	1·3
Fatteh Jang	4
Nala	...
Gheb	1
Sil Soan	7
Pindigheb	3
Jandál	2
Makhad	2
Sil	4
Tallagang	5
District	4·6

Moth is valued as food for horses and cattle. The grain is an excellent substitute for gram, and the straw makes good fodder. *Mung* and *másh* are used only as vegetables or *dál*. Neither crop is of much importance.

Jowár.

Jowár or great millet is grown on all classes of land, but chiefly on *maira*. A good deal is sown on the Sarwálla *sailáb*, the Chel lands. On the whole more *jowár* is grown than maize. Everywhere it is grown exclusively for fodder, and is sown thick. The area under this crop tends to increase as the grazing grounds contract with the advance of cultivation. It also yields some grain if allowed to ripen, but it is seldom left to mature. It is grown very easily, gives no trouble, and with

	Per cent.
Attock	3·6
Chhachh	4·3
Sarwála	3·1
Nala	3·2
Fatteh Jang	3
Nala	1
Gheb	3
Sil Soan	3
Pindigheb	4
Jandál	4
Makhad	3
Sil	4
Tallagang	5
District	3·9

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favourable rains yields a good return; but it succumbs to drought more easily than *bájra*. For this reason it is generally grown on good lands. The succulent stalks provide an imperfect substitute for sugarcane for chewing.

Cotton.

Cotton (*kapás*) is grown on the best soils and on the worst. In all four tahsils the well-irrigated area under cotton is considerable, but much the greatest amount is grown on *maira*. A good deal of the *nahri* land in the Attock Tahsil also is under cotton. In Tallagang it is found on the wells, and on the inferior soils, including a great part of the newly broken *rakar*, sloping gritty stuff of the poorest and roughest description. On such land the yield, if any, is miserably small, but the crop fills the ground for several years at little cost or trouble. There is always some cotton grown in every village, not for sale, but to meet personal requirements. Sowings take place in March and April. The seed is sown broadcast, but scantily, so that the plants shall not press upon each other. Furrowing (*sil*) is done after it has begun to come up, especially on irrigated lands, and pickings begin in the middle of September, and continue once a week throughout November. This is usually done by women and children. The husks are given to cattle, after roasting, with their chaff or other fodder. Cotton is a plant which can be ratooned, and if another crop is desired, it is cut down in December. But this is not done on irrigated lands. On *báráni* lands it stands for two, and in Tallagang as a rule for three years, yielding best in the second year, when the plants are more vigorous and bushy, and worst in the third year, when there is a great falling off both in quality and in quantity. If it is intended to take a different crop off the ground in succession to cotton, as on irrigated lands, it is necessary to dig out the roots carefully. It is in Tallagang succeeded by *jau*. On irrigated lands it is always a valuable crop. Too much rain is bad for it, and it grows best on average land which, while not damp and waterlogged, should be fairly moist. It is both hardy of growth and exhausting to the soil.

	Per cent.
Attock	1·7
Chhachh	1·6
Sarwála	·4
Nala	2·6
Fatteh Jang	2
Nala	2
Gheb	2
Sil Soan	3
Pindigheb	2
Jandál	1
Makhad	3
Sil	3
Tallagang	4
District	2·7

Sugarcane. *Kumád.*

Sugarcane grows only in Attock Tahsil, on *cháhí* and high class *ábí* lands. Where the best cane is grown the soil must be so good and the manuring so heavy that a second crop of onions, cucumbers, or, on a few wells near Hazro, even tobacco becomes possible.

Three kinds are cultivated—*paundha*, *kio* and *sahárni*. The *paundha* and *sahárni* varieties are sold standing, and are cut up and

eaten as *ganderi* for chewing. The *káo* is a slender variety of cane, from which the juice is extracted. *Paundha* is the only cane grown in the Nala circle, and is there confined practically entirely to the rich *ábi* lands of Hasan Abdál and Wah. It is also produced in the well lands of Hazro in the Chhachh, and on certain wells in eleven of the neighbouring villages. In the Sarwála it is not found as a rule at all, except in Shiráni, one of the twelve villages noted above, which runs up close on Hazro on the north, and spreads away into Sarwála sand on the south. Thus the bulk of the Chhachh and Sarwála cane is *káo* and that of the Nala *paundha*. Except in Chhachh, its cultivation is not an important item in the husbandry of the District. In Chhachh planting takes place from 20th March to the end of April, and the cane is usually grown in lands from which cotton has been dug out in the preceding December, the ground being constantly ploughed up thereafter to prepare it for sugarcane. The best selected canes are tied into bundles and buried in the ground in the middle of October, and they are left in the ground until the time for planting arrives. They are then taken up and are carefully cut into lengths from six inches to one foot, each containing one or more knots. All inferior, bruised or blemished portions are rejected. These pieces are then planted horizontally in the ground, which has been well ploughed and manured, about six inches under the surface, and the same distance apart. When this has been done over the whole field to be planted, water is at once let on to it, chiefly in order to obviate danger from white-ants. The land is then irrigated as frequently as may be, and *godi* or hoeing is done several times before the cane ripens. Also, if necessary, manure is thrown in June and July. From 15th October onwards the cane ripens.

The *paundha* or *sahárni* varieties attain a height of from four to eight feet, and a diameter of from two and a half to four inches; *káo* from three to six feet, with a thickness of from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches. Sales of separate canes are made, however, before the crop is ripe, in the neighbouring *bazárs* by the end of September. Except in Chhachh, the crops are sold standing for sale in the *bazárs*. In Chhachh, however, the juice is extracted by the cultivators.

The plant necessary to the extraction of the juice consists of a hut or shed, a crushing press, an oven built under the shed, four or five feet deep and about three feet wide with a large iron vessel for boiling the sugar in, and sundry vessels for receiving the juice. This oven and press are set up on the borders of the field, the cane is cut and carried direct to it, and in many places in Chhachh, the cutting, pressing and boiling processes go on simultaneously. The press, which in this District is usually the Behea sugar-mill, is worked by one bullock or buffalo; a man is required to feed the press with canes, and the juice runs off into earthenware vessels known as *matka*. When four *matkas* are full, they are

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emptied into the *karah* or iron cauldron, and the furnace is then lighted beneath it; the juice thus extracted is known as *ras*. One man is required to manage the fire, and another to watch and stir the juice as it is heated up. When the juice becomes red in colour, the fire is allowed to die out; and the juice now of a much greater consistency is ladled out into open vessels. When it has cooled, such portions of it as are white and pure are taken and rubbed by hand and purified thus into sugar. Those portions which are less clarified are made into *gur*, and rolled into balls weighing from 10 to 20 *tolás*.

From $3\frac{1}{2}$ to 7 maunds of *gur* can be prepared in this way in the 24 hours. This process is completed in this District by 15th December. A kanál of *paundha* sugarcane in Chhachh, on the average, yields 28 maunds of juice, giving about seven maunds of *gur*. *Káo* yields about 20 maunds per kanál, yielding five maunds of *gur*. Canes sold standing, to be disposed of piecemeal in the *bazárs* and not required for immediate sale, are buried in bundles and kept as late as the following June. The juice of the *káo* variety is darker in colour and inferior to that of the other varieties. When *káo gur* sells for Rs. 3 a maund, *paundha gur* will sell for Rs. 4 or Rs. 5.

The largest area of sugarcane and the best crops are to be found in the villages round Hazro in the Attock Tahsil. Sugarcane fields in the immediate neighbourhood of Hazro are very highly manured. Thirty loads of about three maunds per load will be thrown on to one kanál, that is, 700 maunds per acre, costing one rupee per ten loads, or Rs. 24 per acre. In outlying villages as much manure as can be gathered is placed on the fields, but it is not usual to purchase it. The canes, after the juice has been extracted, are used as fuel, and the leaves used as fodder for cattle.

Other Kharíf crops.

Other kharíf crops include til, hemp, pepper, and other small crops, vegetables and a little fruit.

Yields.

The average yields per acre harvested of the various crops were carefully worked out at the various Settlements, and are all on record in the Settlement Reports. These outturns were calculated for assessment purposes, and intentionally err on the side of leniency. But they are on the whole fairly accurate but moderate estimates of the average outturn. They are no doubt largely exceeded in a good year on all lands, and on the best lands in an average year.

Many calamities reduce the yield. Drought is a constant dread. On the other hand rain damages the gram. High winds and hail lighten the wheat crop. Locusts and other insect-pests, rats, birds and wild animals all take toll. In dry seasons white-ants do harm. Weeds and various plant-diseases, such as rust, retard the crop. Even when the produce is brought home after suffering further loss on the threshing-floor (which may be heavy if the weather is bad) the stored grain is liable to be attacked by weevils.

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As the Settlement yields are scattered through three reports they are collected here for ease of reference :—

Tahsil.	Assessment circle.	Kind of land.	Crops.							
			Maize.	Bájra.	Pulse.	Cotton.	Wheat.	Barley.	Gram.	Táramíra.
TALLAGANG.	...	Irrigated	520	460	120	200	480	600	...	...
		Hail and Báráni ...	...	260	120	100	300	340	...	...
		Maira and Rakar ...	...	140	120	40	160	220	300	120
FATTEH JANG.	Nala.	Cháhí ...	600	320	120	120	400	480	240	120
		Abí	600	320	120	120	400	480	240	120
		Sailáb	400	120	80	60	200	240	240	120
		Lipárá	400	300	120	100	240	300	240	120
		Las	400	120	80	60	240	240	240	120
		Maira	400	120	80	60	200	240	240	120
		Rakar	400	80	40	40	160	200	200	80
	Gheb.	Cháhí	520	320	120	120	400	480	280	100
		Abí	520	320	120	120	400	480	280	100
		Sailáb	400	120	80	60	160	200	200	100
		Lipárá	320	200	120	100	220	280	280	100
		Las	400	120	80	60	220	200	200	100
		Maira	400	120	80	60	160	200	200	100
		Rakar	400	80	40	40	120	160	160	80
	Sil Soan.	Cháhí	720	360	120	120	400	440	240	100
		Abí	720	360	120	120	400	440	240	100
		Sailáb	400	240	120	100	300	320	240	100
		Lipárá	400	240	120	100	260	300	240	100
		Las	400	160	80	60	240	240	240	100
		Maira	400	160	80	60	200	240	240	100
		Rakar	400	80	40	40	160	200	200	80
PINDIGHEB.	Jandál.	Cháhí	480	320	120	120	400	400	280	100
		Abi	480	320	120	120	400	400	280	100
		Sailáb	480	120	80	60	140	160	200	100
		Lipárá	480	200	120	100	240	280	280	100
		Las	480	120	80	60	180	160	200	100
		Maira	480	120	80	60	140	160	200	100
		Rakar	480	80	40	40	120	120	160	80
	Makhad.	Cháhí	480	320	120	120	360	400	240	80
		Abí	480	320	120	120	360	400	240	80
		Sailáb	480	100	80	60	120	140	160	80
		Lipárá	480	200	120	100	200	240	240	80
		Las	480	100	80	60	160	160	160	80
		Maira	480	100	80	60	120	140	160	80
		Rakar	480	60	40	40	80	120	120	80
	Sil.	Cháhí	520	360	120	120	380	400	240	100
		Abí	520	360	120	120	380	400	240	100
		Sailáb	300	120	80	60	140	160	180	100
		Lipárá	300	200	120	100	200	200	240	100
		Las	320	120	80	60	180	160	180	100
		Maira	300	120	80	60	140	160	180	100
		Rakar	300	80	40	40	100	120	120	80

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Tahsil.	Assessment circle.	Kind of land.	Crops.							
			Maize.	Bájra.	Pulse.	Cotton.	Wheat.	Barley.	Gram.	Táramíra.
Attock.	Chachh.	Cháhí	880	...	...	...	400	480	...	...
		Sailáb	440	...	...	...	280	300	...	...
		Maira	280	200	...	...	240	240	240	120
	Sarwála.	Cháhí	640	...	...	...	400	400	...	...
		Abí	480	...	...	...	360	400	...	...
		Sailáb ...	400	240	...	...	280	300	...	...
		Maira	200	160	...	...	160	160	200	100
	Nala.	Cháhí ...	800	...	...	...	400	480	...	...
		Abí	800	...	...	...	400	480	...	...
		Nahri	400	200	...	...	280	300	...	240
		Sailáb	400	240	...	...	300	320	...	...
		Maira	200	200	...	...	240	240	240	160

Extension of cultivation.

The present (1906) cultivated area is 29 per cent more than that of twenty years ago. The increase is not uniform throughout the District. Conditions differ very largely especially north and south of the Kala Chitta. In Pindigheb and Fatteh Jang the land is held by large proprietors cultivating through tenants. The increase of cultivation in these two tahsils between first and second Settlements and between the second and third Settlements is shown below:—

Increase per cent of cultivated area between.	Nala.	Gheb.	Sil Soan.	Tahsil Fatteh Jang.	Jandal.	Makhad.	Sil.	Tahsil Pindigheb.
First Settlement and Second Settlement (1857—64 and 1880—85).	42	90	49	66	58	49	67	63
Second Settlement and new measurements (1880—85 and 1902—07).	6	10	2	7	5	10	1	3

The check in the rate of increase of cultivation in every circle, and especially in the Sil, is very marked. There is no doubt that the feverish extension of cultivation which marked the period of the first Settlement has passed away, and is not likely to return. The tenant difficulty is increasing, and the area under cultivation depends far more on the pressure of the tenants on the soil than on any efforts which the owners may make to extend their cultivation. There is still plenty of waste waiting the plough, but the average owner is not industrious himself and not considerate to his tenants, while the average tenant has as much as he can cultivate already.

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In Attock tahsil, on the other hand, the waste available for cultivation is small, and what there is is poor. Between the second (1885) and third Settlements (1902) the cultivated area increased in the Chhachh by 5·5 per cent, in the Sarwála by 10·6 per cent, and in the Nala circle by 5·8 per cent. But the new cultivation is of very inferior quality, including the mouse-eaten lands along the Indus or the skirts of the Chel stream where the soil is impregnated with salts, besides here and there fields rescued from the hill slopes or the sides of ravines. In the Nala circle the increase of cultivation has been retarded by a heavy falling off in the villages along the Haro, a big slice of whose lands has been lost by diluvion. In Tallagang cultivation increased 22·7 per cent. between 1878-79 and 1899-00 and the increase is still going on. But everywhere the new cultivation is for the most part greatly inferior to the old. All the good land, at least in Attock and Tallagang, was brought under the plough long ago, and much of the new stuff is so poor that it can hardly repay the cost of cultivation. In these two tahsils the increase in cultivated area gives little guide to the increase in the resources of the people. Here and there waste that will make fair cultivation does exist, but in the ordinary village this is not the case. In Fatteh Jang and Pindigheb, on the other hand, there is still great scope for extension, but there is little hope that the occasion will be improved.

With regard to the method in which land apparently almost unculturable is brought under cultivation, Major Wace, who settled Tallagang Tahsil, then a part of Jhelum District, made the following remarks :—

"The method by which cultivation is now extending in the west half of tahsil Jhelum, in tahsil Chakwál and Tallagang, and in the hill circle of tahsil Pind Dádan Khán, and in which it has been extending during the past fifteen years, is peculiar to this part of the Punjab. These portions of the District are elevated plateaux intersected by ravines. The ravines cut back in countless little branches into the plateaux and the lands reclaimed are largely those which form the beds and sides of these little ravines, or the sloping lands which lie at the foot of the low ranges of hills. These lands are correctly described as unculturable in their natural state. They are rendered culturable by a laborious process of levelling down and banking up. They were originally for the most part recorded as village common: but since the Regular Settlement was made there have been continual partitions of them all over the country. And when partitioned, the owners reclaim them, not by an expenditure of capital, but by steady industry. The upper banks are broken down, the lower ends of the slopes are banked up and the beds are dammed. Every means is adopted to level unequalities and to prevent the rains from washing away the soil that is broken down. Occasionally down comes heavy rain and

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breaks the lower slopes and dams on which so much pains have been spent and washes away a great quantity of valuable soil: and the cultivators have to do almost half their work of reclaiming and levelling over again. And so they have worked on perseveringly and unweariedly for the last fifteen years; till when the new measurements come, and we add up the total area cultivated, we are astonished at the gross amount of land that has been reclaimed, and wonder how the previous Settlement Officer can have so short estimated the prospects of extended cultivation. Well so far so good; only let us take care how we assess this new cultivation. A great portion of it is in a very unformed state; and if we put too much revenue on it, the people will lose heart and throw it up. Treat it lightly, and they will not feel its assessment; and will go on as before steadily reclaiming unculturable land, till very likely, thirty years hence, the Settlement Officer of the day will wonder how it came about that I repeated my predecessor's short estimate, and returned so much land as unculturable. In other districts the land returned as culturable is land which any one would be glad to have; but that reclaimed in this District is stuff which no ordinary outsider would think worth asking for: but the resident cultivators break it down, level it, and embank it year by year, till in course of time the new lands are as fine as, and sometimes finer than, the old."

Land Improvement Loans.

North of the Kala Chitta loans for improvements are made chiefly for the sinking and repair of wells, south of the Kala Chitta for the construction of embankments. Statistics are given in Table 20 of the second volume. In Fatteh Jang and Pindigheb there is not the same necessity for loans as elsewhere. Most of the land is cultivated by tenants under large and prosperous proprietors, who are themselves able to afford all the assistance required. In the Makhad ilaka embankments are often built with savings made in Government service. In Attock Tahsil the annual average of loans granted has been about Rs. 3,000, but in the year 1902-03, when Settlement was in progress, the loans rose to Rs. 68,950. In the Chhachh alone Rs. 51,900 were distributed by the Settlement staff for well sinking. Seventy-six new wells were sunk and 27 put in repair. In Sarwala the loans amounted to Rs. 15,860 for the construction of 24 new wells and the repair of 6 old ones. In the Nala, where there is very little room for further well extension, it was not considered worth while to distribute loans under the Land Improvement Loans Act. There is still room for a further spread of well cultivation, and loans continue to be given. These loans are usually properly applied, and are not difficult of recovery.

In Tallagang also considerably more loans than usual were distributed during Settlement to assist in the construction of enbankments. Since the formation of this District this tahsil has shared more fully than before in the loans distributed, and can

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still make use of all the loans it can get. Recovery is not difficult and the loans are popular.

Agriculturists' Loans Act.

Loans under the Agriculturists' Loans Act are made mostly in petty grants, and ostensibly for the purchase of bullocks or seed. The necessity for them varies with the nature of the season. In good or average years the amounts distributed are small, but in bad years, the reserve resources of the people being insufficient, very general loans are necessary. The harvests of 1896-97 and 1899-1900 were everywhere bad, and in 1901-2-3 Fatteh Jang and Pindigheb did not do well. The figures in the margin give the loans for these years. In Attock these loans are very seldom required. During the last twenty years, considerable advances were made only in the very bad year 1896-97. Unfortunately loans granted for purchase of seeds and bullocks are very generally misapplied, and their recovery is often difficult.

	Rs.
1896-97 ..	27,738
1899-00 ...	59,870
1902-03 ...	26,145

Agricultural Banks.

There are no agricultural banks in the District, and it is doubtful if they could be established with any success. They might do well in Tallagang, but not elsewhere.

Agricultural indebtedness.

Agricultural indebtedness varies very largely from tahsil to tahsil and even within tahsil from circle to circle. In the Chhachh the position of the *zamíndárs* is very strong. What mortgage there is is due either to individual improvidence, or else to absenteeism. When a Pathán goes on service, he protects his land from his relatives by mortgaging it to a stranger. There are always members of agricultural tribes ready to take it up, and there is a healthy give and take in the matter. Under 8 per cent of the total cultivation is mortgaged. 68 per cent of the total mortgaged land is mortgaged to members of agricultural tribes, and only 19 per cent to Hindu money-lenders, nor is there an undue proportion of well lands hypothecated. As with mortgages so with sales. Between second and third regular Settlements just under 4 per cent of the total cultivated area changed hands, and of this amount 76 per cent was taken by members of agricultural tribes.

The condition of the Sarwála is very similar. Between the two Settlements under 4 per cent of the cultivated area was sold, 89 per cent of the total transferred area going to members of agricultural tribes. The mortgages, as in the Chhachh, are largely commercial transactions. Less than 5 per cent of the total cultivated area is mortgaged, and Hindus hold only 16 per cent of the lands under mortgage.

In these two circles the *zamíndárs* are practically completely free from embarrassment. But the Attock Nala circle is different. As a whole the circle is a lame one. It is owned by large, but, on the whole, weak proprietors. It is burdened to the extent of 28 per cent with unproductive occupancy tenants, and on an average

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37 per cent of the unirrigated crops fail to come to maturity. Though the circle is not yet heavily indebted the process had commenced when the Land Alienation Act was introduced, and 16 per cent of the total cultivated area is under mortgage. Hindus hold 57 per cent of the mortgaged area, and the majority of the mortgages are due, not, as in the rest of Attock Tahsil, to convenience, but to real financial embarrassment.

In Fatteh Jang generally there is no cause for anxiety about the alienations, nor are the people generally embarrassed. Among the Ghebas transfers are very small, and even among the Khattars with their mad extravagance alienations are not very large. The largest percentage of transfers is in the Sil Soan, but there the Alpiáls and Awáns are a steady, thrifty lot, quite capable of looking after themselves, so that while Hindus in that circle hold 5 per cent out of 7 per cent of the mortgages, they have acquired only 4 per cent out of 11 per cent of the sales. In Pindigheb the state of the alienations is really serious and money-lenders have in many parts of the tahsil acquired a commanding position, which enables them to harry the people almost as they will. A comparison between Fatteh Jang and Pindigheb can be made from the following statement, which shows for each circle the percentages of the cultivated area sold, and now under mortgage, together with the average transfer price per acre :—

Detail.	Nala.		Gheb.		Sil Soan.		Tahsil Fatteh Jang.		Jandal.		Makhad.		Sil.		Tahsil Pindigheb.	
	Area.	Average price.	Area.	Average price.	Area.	Average price.	Area.	Average price.	Area.	Average price.	Area.	Average price.	Area.	Average price.	Area.	Average price.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Existing mortgages.	5	38	4	26	7	68	5	47	20	19	12	13	16	16	16	17
Sales ...	1	68	6	44	11	78	7	64	12	49	16	46	10	35	11	40
Total ...	6		10		18		12		32		28		26		27	

In no part of the old Ráwalpindi District was the Alienation Act so sorely needed as in Pindigheb. It must also be remembered that in that tahsil there are large proprietors, like the Maliks of Pindigheb and the chief Maliks of Khunda, who own many villages, and these, so far from selling land, are buying in all directions. If their villages were excluded the proportion of transfers in the whole tahsil would be much higher than is shown by the figures above. In order to indicate roughly the state of transfers among individual tribes, alienation figures of 13 Khattar villages and 37 Awán villages have been excerpted with the result

shown below, the percentages of transfers being the transfers of cultivated area :—

		Awan.	Khattar.
Under mortgage	...	20	18
Sold	...	12	11
Total	...	32	29

Of these transfers far the greatest part is to money-lenders. In the Awán tract, we find money-lenders ruling the villages, raising the old customary rents, taking a share of the straw, breaking up grazing lands, exacting enormous usury, and attaching the plough cattle and selling the houses of their debtors. The Alienation Act has done much to stop all this, the Settlement has done something, and it is to be hoped that the civil law and the revenue administration of the new District will be more under control than has been the case in the past. The causes of alienations are two-fold. The Khattars and Jodhras are not self-cultivating and only take to cultivation when they cannot continue to make a living by employing tenants and servants. By the time that the step is taken and the landowner has ceased in his own estimation to be a gentleman, and has become a peasant, it may be that a load of debt has been accumulated which can never be liquidated. Sons are born and families split up, and each branch tries to keep up the style, the horses, the hawks, and the servants, to which they were accustomed in their youth. When, among the Khattars, litigation and dissipation are added to other expenses it is not remarkable that families go under. The Awáns however, are neither lazy nor extravagant. They are simply unfortunate. Alienation and debt among them are not new, for the mortgages of total area in the Jandál Circle have decreased since Revised Settlement. They are in debt because no peasant proprietary can expect to keep out of debt in a tract where good years are few and bad years many, where there are no extraneous sources of income, and where the cattle and the children have to be fed in good years and in bad years alike. The land revenue is not of much consequence in determining debt. Suspensions have been given continually and liberally, and it is certain that in a good year the revenue is nothing and its incidence hardly felt. Except in a few villages, where measurements were wrong or the statistics wrong, the land revenue is not high, but the great increase taken at Revised Settlement in a poor and struggling tract has not justified itself, and the subsequent history of the tract has verified the gloomy expectations of some of the officers who noted on the assessment proposals of the Settlement. Tallagang is a good deal better off than Pindigheb and a good deal worse off than Fatteh Jang. Ten per cent of the total cultivation is under mortgage, 7 per cent being mortgaged to *sáhukárs* and 3 per cent to *zamíndárs*. Between second (1878-79) and third (1899-1900) Settlements 8 per cent of the total cultivation was

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transferred by sale. The unsecured debt in 1898 was estimated at Rs. 5,41,979 or Rs. 1-12-7 per acre of cultivation. But the tahsil is not unprosperous. Parts of it are much involved and raise the general rate, but considerable portions are for the present times remarkably free from debt, and, as a whole, it gives the impression of freedom from serious embarrassment except where extravagance is the cause of it. The extent to which the cultivated area in each tahsil is mortgaged is shown below:—

Name of Tahsil.	Area in acres.
Attock	1,398
Pindigheb	1,979
Fatteh Jang	370
Tallagang	2,067
Total ...	5,814

Generally the District is not seriously embarrassed. Things are worst in Pindigheb Tahsil. Then come the Attock Nala and parts of Tallagang. Elsewhere the agricultural population easily holds its own. Indebtedness does not depend much upon the pitch of the revenue or, except in the Jandál and Makhad ilakas, on natural advantages, but almost entirely on the varying degrees in which thrift is practised or neglected. Debt often begins in extravagance on domestic occasions or in ruinous litigation. Perhaps the cattle die through drought or sickness. In days of prosperity no provision has been made to provide a reserve for bad seasons, and there is only the money-lender to whom to go. Once in his clutches escape is difficult. Even a trifling debt, fostered by his wiles and swollen by means of heavy compound interest before long becomes a crushing burden. Most of the mortgages appear to take place in the four months of July, August, December and January, when the revenue is being realised, but that does not prove that indebtedness is due to the severity of the assessment. The fact of having to find a given sum by a certain date does lead to many transfers, but the man who mortgages his land to pay Rs. 30 would probably not refrain from doing so if he had to pay Rs. 20 or less. There are other reasons also for the large number of transfers registered in the demand months; balances are struck at those seasons, and the zamíndár has more leisure to attend at the tahsil than at other times.

Prices realised.

The increase in the value of land in all circles is very striking. The average prices at which sales were effected in 1900—1906 are given in the margin in comparison with mortgage prices. True mortgage and sale prices are almost impossible of ascertainment. The former are swollen by the accumulations

Year.	Sal.	Mortgage per acre.
	Rs.	Rs.
1900-1901	31	25
1901-02	33	21
1902-03	16	20
1903-04	22	21
1904-05	32	18
1905-06	47	24

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of interest, and a substantial addition is always made to the latter to keep off pre-emptors. But, even though the figures are not quite reliable, it is beyond doubt that the value of land has risen enormously. In Tallagang sale prices rose in the twenty years 1878—1898 from Rs. 9 to Rs. 26 and mortgage prices from Rs. 10 to Rs. 20 per acre. Land in the Chhachh that in 1885 sold for Rs. 23 or was mortgaged for Rs. 32 an acre is now sold for Rs. 175 and mortgaged for Rs. 97. In the Sarwála the average mortgage and sale money per acre now stand at 72 and 127 times the land revenue. The average sale money per acre cultivated comes to Rs. 63. The sale price in 1885 was Rs. 30 per acre. The passing of the Land Alienation Act for some time depressed the selling value of land, but prices have now regained their former levels.

Rates of Interest.

The usual rate of interest to *zamíndár* borrowers is 25 per cent per annum. To ordinary shop-keepers of good credit the usual rate is 1 per cent per mensem or in some cases twelve annas. The following accounts of the methods of money-lenders is taken from the Shahpur Gazetteer, but is accurate for at least the southern half of this District.

The better class of Hindu and Sikh bankers and shop-keepers, keep three account books (*vahi*), (1) the day-book (*súhr*, *parchún* or *bandi*), in which all transactions are recorded day by day as they occur; (2) the cash-book (*rokir*), in which only cash transactions are entered as they occur; and (3) the ledger (*khdta vahí* or simply *vahí*), in which each client's account (*lekha*) is written up from the day-book at the shop-keeper's leisure. The great majority of shop-keepers, however, keep up only the ledger, making entries in it from memory or from rough notes which are destroyed, so that there is no means of checking the entries. The ledger (*vahí*) is kept in the form of loose leaves fastened together lengthwise in such a way that a leaf can easily be extracted without detection. Each page (*panna*) has its number (*angg*), and it is usual, on opening a new ledger, to get a Brahman to imprint on the seventh page a coloured picture of Ganesh and his rat, adding the invocation "*Om Svasti Ganesháya-nama*" with the date and a blessing. The account of each client shows on the left side the debits or out-goings, and on the right side the credits (*ágit*). Generally, once a year the balance (*baki*) is struck, intrest (*veáj*) charged, and the net balance carried forward to a new account. As the peasant who has his dealings with the shop-keeper (*kirár*) is often utterly ignorant of accounts and very careless, he is often taken advantage of by the shop-keeper who will, as occasions offers,

(1) dole out old grain of sorts for food purposes in the cold season, and take repayment at harvest time, a few months later, in wheat or its money equivalent, plus from 25 to 50 per cent interest;

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(2) exact full repayment on the threshing-floor, leaving the customer insufficient grain wherefrom to pay his land revenue and feed himself till next harvest;

(3) a month or so later pay his debtor's land revenue, and, taking advantage of his necessity, charge him at least the highest average rate for money lent;

(4) take one anna per rupee as discount (*katt* or *gadd chhora*) when making a loan, but charge interest on the discount;

(5) cut six months' interest out of a loan, and record the gross sum as a loan free of interest for six months;

(6) cause the debtor to go before the Sub-Registrar and state that he had received the whole loan in cash, whereas, in fact, the amount was chiefly made up of simple and compound interest;

(7) misrepresent debts in the ledger by entering inferior grains as if wheat;

(8) allow no interest on repayments in kind and either no or short interest on credits in cash, and cause the customer to believe, when he is making a payment to account, that a concession of grace has been made when a small remission is credited to him out of the interest due (*chhot* or *mor*);

(9) generally keep accounts in a loose, unintelligible, way which make the separation of interest from principal impossible;

(10) keep only a ledger, plus sometimes a sort of day-book, in loose sheets or book form, and write up the former at any time;

(11) strike the balance in a casual way, naming as present one or two witnesses, either brother lenders or men of the class known as "four-anna witnesses";

(12) charge a full year's interest on grain or money lent a few months or even weeks before the striking of balance.

The usual rate of interest charged between bankers of good credit on bills of exchange (*hundi*) is one pice per day for Rs. 100 = $7\frac{1}{2}$ annas per cent per mensem, nearly 6 per cent per annum. On ordinary loans to shop-keepers of good credit the usual rate is one per cent per mensem = 12 per cent per annum. But a peasant rarely gets a loan at less than one pice per rupee per mensem, or Rs. $18\frac{3}{4}$ per cent per annum; and often the rate charged is 24 or 36 per annum; and with the aid of the methods of calculation detailed above, the money-lender often so manages his accounts that a good solvent customer's money debt is doubled inside three years, and his grain debt inside two years; and if the

lender be exceptionally dishonest, and the debtor exceptionally helpless and stupid, the debt doubles itself in an even shorter period. CHAP. II. A. Agriculture.

There is nothing peculiar about the cattle of the District except in Tallagang, where there are many fine beasts, mixed, however, with a great number of average or inferior animals. Elsewhere the cattle resemble the poor class animals of Ráwalpindi District. The Tallagang breed was described at length by Veterinary Captain Gunn, C.V.D., in his report for the year 1898-99 on the live-stock of Jhelum District, and from that report the following information is taken. Live Stock.

The average height of the better class of Tallagang bullocks is 51 inches behind the hump, with splendid chest measurement (a sure sign of power), as much as 77 inches on the average. The corresponding measurements for four-year old siege train bullocks at Kessár are 47 and 58 inches. The breed is quite a distinctive one and it is not found further south, nor even in the adjoining parts of the Ráwalpindi District, where the cattle are of a very poor class. The excellence of this breed seems to be the result more of good luck than management, for as in the rest of the District, so here, breeding is not carried on according to organized principles, but haphazard, the young males running with the herd until they are about 3 or 3½ years old, when they are emasculated. The people recognize that this is not a satisfactory arrangement, but are unwilling individually to do anything to improve matters. It is suggested that young males should not be allowed to run loose unless approved and branded, while the produce of suitable Hissar bulls might be turned loose with the herds. The few Hissar bulls hitherto tried do not seem to have been a success, their progeny being tall, leggy, shallow-chested animals, requiring more feed than the local stock, and possessing less stamina. The zamíndárs look after their cattle very well, and their good quality may be due to the care with which they have been tended in successive generations. In favourable seasons the grazing is sufficient and of good quality. Working cattle are home-fed more or less throughout the year, but at certain times all have to be kept off the fields, and for months at a time are practically all stall-fed, and only leave the home enclosure when driven to water. The ordinary food in the spring is green *sarson* and *tárámíra*, mixed with dry chopped *bajra* or *jowár* stalks. *Bhusa* is mostly used in May to July, mixed with green *charri* if the season permits. After that the feed is *bájra* and *charri*, green up to the end of September, and dry afterwards up to February, with wheat and pulse straw, as available. Favourite buffaloes and cows are given oil-cake and various grains, animals doing hard work on the wells, etc., also getting a grain ration if possible.

Cows are treated with little consideration, being often made to drag the plough. They come into season at about 2½ years, and breed at 3½. They are poor milkers, giving only about one to two seers a day.

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The characteristics of the breed are moderate size, flat foreheads, short horns, square bodies and fairly level backs, deep chests and very long tails, with a big tuft of hair at the end of them.

The better class of bullock bred in Tallagang is much in request down country in Sialkot, Gujranwala and Amritsar and a considerable export trade is carried on. The stock is usually bought up on the spot by traders, mostly Hindus from the Bannu District, or men of the Attock Chhachh. The beasts intended for sale are exceedingly well cared for and realize high profits. The estimated annual sales of stock from Tallagang are 300 head, the average price being about Rs. 40 per head.

The cattle of the rest of the District are of a very poor breed. They are fed much as described above. The cows are very poor milk givers, and cows for milk are freely imported from other districts. Cows drop from four to seven calves before going barren.

Cattle diseases are at times very prevalent in this District, and are often very fatal. Eleven different diseases are reported to be known. The most fatal are—

Gari or *ghotu*, a swelling of the glands; animals thus affected rarely survive. The only attempt made to cure it is by pronouncing spells over the animal. It is infectious.

Tak or *taku*, which comes at all seasons; the animal ceases to eat, the body swells, and the skin becomes limp, and the temperature falls.

Bari zahmat, or *wah*, a kind of dysentery. *Wah* also is now used for rinderpest.

Mokhur, the foot and mouth disease. Animals affected are carefully separated from the others.

Pharún, accompanied by cough.

Dhakh, a disease of the mouth.

Ching, *pilchi*, *tah* and *tili*, the last a disease of the spleen, are vernacular names for less common affections. When kine are affected with *mokhur*, it is considered very beneficial to hunt down a jackal with dogs, and then to drag his dead body round the affected animals.

The buffaloes of the District, like other horned cattle, are of inferior breed. Male buffaloes are used for ploughing, and more commonly in the working of wells.

Cow buffaloes give more milk than cows, from two seers up to as much as twelve seers per diem, and drop from five to eight calves. They are fed much as other cattle; milk buffaloes are more carefully looked after when in milk than other kinds. Milk buffaloes cost from Rs. 15 upwards; even Rs. 100 will be given for a very good one. The male costs much less, from Rs. 12 to Rs. 40.

Camels are found in considerable numbers in all tahsils, and in all circles, except the Chhachh. They are common in many parts of Tallagang, and many of the big Maliks of Pindigheb and Fatteh Jang own large numbers, from which they derive considerable profit. They are all pack animals, highly bred riding camels being quite unknown. But they are a fine breed, the keeping of them is encouraged by the proximity of two cantonments. Their numbers, however, tend to decrease with the opening of new railways. A considerable number are employed on the grain routes, especially to Gujar Khán and the stations on the Mari-Attock Railway. Only in Attock are their numbers increasing. The total number within the District is a little over seven thousand.

Camels are made to carry light loads when two years old, and are considered full grown at seven years. While still at the mother's foot, the young camel is known as *toda* or *liháh*. From this period up to two years as *chhattar*; when three years old as *tirhán*; four years *doh*; five years as *chocka*; six years as *chhigga*; seven years and upwards as *jawán*. They usually work until twelve years old. They browse on trees and shrubs, such as *jand* and *phulaa*, and occasionally get *táráмíra* and green *moth*, of both of which they are very fond. The absence of carts, except on the metalled roads, makes camels peculiarly valuable in this District. The price varies from Rs. 30 to Rs. 120; a fair average beast can be purchased for Rs. 70 to Rs. 80. The camels of this District are rarely ridden and do not make good *sawári* camels, but they are strong and enduring, and excellent beasts of burden.

The diseases from which camels suffer much in this District are—

Múwára malli, from cold or wind stroke.

Akar, under which the animal becomes almost rigid.

Joga, a very fatal disease, considered very infectious, in which the whole body swells, and the animal cannot eat.

Pira, accompanied by eruption on the skin.

Horses.

The District has a certain reputation for horse-breeding. Several parts are well suited for the purpose, and many good animals are annually produced. In Colonel Cracroft's time the horses of Jandál were noted for their blood and wiry strength, the village of Mithiál in particular having a great reputation, but now there are very few horses in that circle. The chief horse-breeding tracts are the Sil iláka of Pindigheb, the Gheb iláka of Fatteh Jang, the Khattar tract north of the Kala Chitta range in Attock and Fatteh Jang Tahsils, and parts of Tallagang; but horse-breeding is by no means confined to these tracts. In the Narrara hills a breed of small, hardy, wiry horses is found, which are much prized, but

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there are not many of them. It is a matter for regret that horses and ponies are diminishing and the breeds are probably deteriorating. Owing to the spread of cultivation the horses are allowed much less liberty than formerly, and the method of tethering the stock is very bad. Within recent years many of the best mares have been drafted off to the Jhelum Canal Colony, but as the colony now provides its own replacements the drain has ceased and some improvement may be expected. Mule-breeding also has made great progress at the expense of horse-breeding, as the profits are quicker, more certain, and more easily earned. The Ghebas and Jodhras and the Awán Malliks are still great horse-breeders and the large owners still keep up considerable studs, but division of holdings and bad seasons have had their effect, so that the number of good mares has diminished and is diminishing. There is little profit in horse-breeding. It is simply a question of love of horses and love of show, and when hard times come the number of horses has to be diminished. Horses are useless to the small zamíndár. He does not require them to ride, and they are not employed in any way in the husbandry of his fields. He can, therefore, only keep them to sell at a profit. Consequently many of the animals bred in the District are sold very young, either to Government officers or across the Indus or wherever there is a demand for them. Some of the horses of the District are fast, and nearly all are remarkably enduring and able to go over the stoniest ground without shoes.

The fodder usually given to horses in this District is grass from April to August; from September to January they get *chari* and the straw of *moth*; in February and March they are fed on young wheat; and in winter are usually given various *masálás* or spices, as *gur*, oil, *majith*, turmeric, and so on.

The grain given to horses varies according to the taste of the owner, *bájra*, barley, *moth* and gram being all in common use. *Moth* is an excellent grain for horses.

Foals intended for exhibition at the horse fair get balls of butter and turmeric, and butter and pepper, to put them into "dealer's condition" as well as cow's and goat's milk. Colts and fillies are, too, often ridden in this District when only two years old, and are often put into regular work at three. Several of the large landowners have formed runs for young stock, with very good results, but horse-breeders, who are unable to do this, continue to spoil the produce by tying them up, as soon as they cease to follow their dams, in dark and close quarters.

The control of horse-breeding operations is now is the hands of the Army Remount Department, and the District forms part of the Ráwalpindi circle.

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The following table shows the distribution of Government stallions throughout the District:—

Tahsil.	Name of Stud.	Detail of Horse Stallions.						Detail of Donkey Stallions.								Detail of District Board Horse Stallions.	
		Norfolk Trotter.	Arab.	Half bred.	Thorough-bred English.	Australian.	Total.	Italian.	Punjabi.	Persian.	Arab.	Home-bred.	Bokhara.	French.	Total.	Arab.	Total.
Attock ...	Hazro ...	...	1	...	...	...	1		...	...	...	...	...	...	2	1	1
,, ...	Wah ...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
,, ...	Hissar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
,, ...	Sarwála ...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Pindigheb ...	Pindigheb ...	...	1	...	...	...	1	...	...	...	...	...	...	...	3	1	1
,, ...	Khunda ...	...	1	...	...	...	1	...	...	...	...	...	...	...	2	1	1
,, ...	Pind Sultani...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
,, ...	Jand ...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
,, ...	Kamlial ...	...	...		...		...	...	...	...	...	...	...	...	2	...	...
Fatteh Jang ...	Fatteh Jang ...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	1
,, ...	Bahtar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
,, ...	Jangal ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
,, ...	Chahan ...	...	...	...	...	...	...	...	...		...	...	...	...	2	...	...
,, ...	Kor Fatteh Khan	...	1	...	...	...	1	...	...	...	...	...	...	...		...	...
Talagang ...	Tallagang ...	...	1	...	...	...	1	...	...	...	...	...	...	...	3	1	1
,, ...	Tamman ...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
,, ...	Trap ...	...	...	...	...	...	...	...			...	...	...	...	2	...	...
,, ...	Pirha Fatehal	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
	Total ...	...	5	...	...	...	5	...	...	...	...	...		...	37	5	5

Mule-breeding.

Mule-breeding has taken a strong hold on the District, somewhat at the expense of horse-breeding. The intial outlay is less. In addition a mule commences work earlier than a horse, requires less care, is more hardy and is readily sold. The high prices paid within recent years have given the breeding of mules a great impetus. Probably the industry is limited only by the available supply of ponies. Mule-breeding naturally tends to extinguish itself. It is breeding to a stop. The supply of ponies is not large, and until some arrangements are made for breeding or supplying pony mares no further extension of mule-breeding is to be expected. The best mules are to be found in the Soan villages of Fatteh Jang. Many are kept by Khatris throughout the District. It is said that

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the mule trade of the western Punjab is almost monopolised by the Khatris of Dudhiál, a large village in the north of the Chakwál Tahsil of Jhelum.

Mules when two years old are known as *deorhi*; when three years old as *dowak*; and from five years old as *jawán*, being then full grown. They are, however, worked after their third year to their eighteenth. Their prices vary very much from Rs. 50 to Rs. 500 for the female, which is considered much superior to the male, and from Rs. 20 to Rs. 200 for the male.

Donkeys.

Donkeys are numerous in the District, and are employed in all kinds of carriage, especially that of stone. The zamíndár, however, does most of his pack work with his ordinary bullocks. They are often used to fetch water when the well or other water-supply is at a distance. Every Kumhar and Dhobi has one or two. The majority are miserable little animals bought and sold for about Rs. 5, but the best will carry an enormous load of grass almost hiding them from view, and are said to cost as much as Rs. 100.

Sheep and goats.

Large flocks of sheep and goats are kept throughout the District. These wide arid plains provide excellent browsing for these animals which are always increasing, and are a very material addition to the means of support of the tenant class, and to a less extent of the owners themselves. In the villages bordering on the Kala Chitta and Khairi Murat ranges and in Tallagang the number of browsers is very large.

Sheep are of two breeds, the ordinary, and the *dumba* or fat-tailed species. The *dumbas* of Makhad are the best breed of sheep in the District. Neither species is of very good quality. Sheep are kept for wool and for their produce. They are shorn twice a year, in or about October and March. The yield of wool on the average is probably not much more than one seer per sheep per annum. Blankets are made from the fleeces. The milk of the ewes is drunk, and mutton is sometimes eaten.

Goats are of good quality, and are very profitable. Their hair is cut only once a year in Baisakh, the yield being about half a *sér*. *Chhats*, *borís*, or large packing bags, much used in the District, and ropes are made of goat's hair. The female goats continue to give milk after their young have been taken from them. The milk is good, and is largely consumed. Goats breed more rapidly than sheep, and often drop more than one kid at a time. They give on an average one kid in the year, and continue producing for five or six years.

A disease known as *phrikki* or *tainki* is often very fatal to both sheep and goats; the zamíndárs know no remedy for it, and it comes on and proves fatal in a very short space of time, the animal often succumbing as if shot.

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Agriculture.

Paun or *khárish* is a sort of mange.

Zahmat or *wáli* is a kind of dysentery.

Thandi is a disease of the mouth accompanied with cough.

Phrikki or *thandi* is considered very infectious.

Another affection, of which the symptoms are great debility, inability to eat, and general collapse, is known as *budhi*.

Plough cattle.

The enumeration of plough and plough cattle (statement 22, Vol. II) gives results which are probably not very reliable. It shows the number of cattle per plough as 1·6 in Attock Tahsil, ·9 in Fatteh Jang, and 1·1 in both Pindigheb and Tallagang Tahsils. But it is probably correct that plough cattle have slightly decreased in both Attock and Tallagang. The loss in the fodder famine of 1899-1900 was very severe, the great hardships which the cattle underwent accounting for the disappearance of the older and weaker animals, and in part at least for the smaller number of young stock now enumerated. Probably Tallagang is somewhat understocked with plough cattle. Many a small land-owner has but one bullock, and makes up the pair by borrowing from a more fortunate neighbour, or by joining hands with another in the same predicament as himself. Cows and even donkeys and ponies too are yoked to the plough. Everywhere in Fatteh Jang and Pindigheb on the other hand there has been a substantial increase in the number of horned cattle, although here too there was a decrease after the bad year of 1899. These tahsils are fairly well off for cattle. But the whole District cannot compare with Ráwalpindi, whether the comparison be made with cattle per cultivated acre, or cattle per plough.

Prices of cattle.

It is not easy to say what the average price of the different animals is. The following are the limits within which sales are usually effected, and an attempt has been made to give the average :—

Male buffaloes	from	Rs.	20	to Rs	45,	average	about	Rs.	30
Female „	„	„	30	„	„ 90	„	„	„	45
Bullocks	„	„	15	„	„ 50	„	„	„	25
Cows	„	„	12	„	„ 40	„	„	„	18
Young stock			...		...	„	„	„	10
Sheep	„	„	2	„	„ 7	„	„	„	2½
Do. *dumbas*	„	„	3	„	„ 12	„	„	„	3½
Goats	„	„	2	„	„ 9	„	„	„	2½

Fairs.

Till recently no very large cattle fair was held in the District. In 1907 a cattle fair was started at Tallagang and was attended by cattle from that tahsil, Pindigheb, the Gheb iláka of Fatteh Jang, and the Chakwál tahsil of Jhelum. Rs. 760 was distributed in prizes. One of the main objects of the show was to encourage the breeding of the Dhanni cattle, which have their home in Tallagang and Chakwál Tahsils. The fair will probably become a permanent institution advantageous to the agriculturists of both Attock and Jhelum Districts.

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Every Monday a cattle fair is held at the village of Gandal in the Chhachh. The fair sprung up in 1905 in connection with the fair held every Sunday at Khairabad in Peshawar District, and has now been taken under District management. It is growing rapidly. Small fees are levied on sales effected and a moharrir is entertained to attend at and manage the fair.

In 1889 and 1890 a fair was started at Hazro, but as it proved to be simply a meeting ground for all the bad characters and resetters of Peshawar District and a mart for stolen cattle, it was stopped by the Deputy Commissioner.

Irrigation. Canal irrigation.

There are no Imperial canals in the District, and no large privately owned canals. The only thing approaching canal irrigation is found in seventeen villages of the Attock Nala, which are irrigated by thirteen cuts or channels taking out of the Haro, and are in consequence known collectively as the Panjkatta. The irrigation is not dissimilar to that from an inundation canal. The water-supply is not perennial. In a large part of the year the Haro at this part of its course is dry. With each fall of rain a freshet comes down the river, and this is caught and taken on to the land. The total amount of land thus irrigated was found at Settlement (1903) to be 7,988 acres of which 1,702 acres were classed as "*nahri dofasli*" and 6,286 acres as "*nahri ekfasli.*" This land is far inferior to both the well and spring irrigated lands. With them irrigation is perennial. In spite of a considerable area of *dofasli* the *nahri* does not quite run to a full single crop a year, in which it compares unfavourably with *sailáb*. On an average 12 per cent of the rabi crops fail. The lands classed as *nahri* vary greatly in quality. There are several villages in which the supply of water is so uncertain that it was only with some hesitation that the land was classed as *narhi* at all. The water channels take out for the most part in the Haripur Tahsil of Hazára in the villages of the Gakkhar family of Khanpur. In consequence the Panjkatta zamíndárs irrigate in practice by the goodwill of the Khanpur family.

Wells.

Irrigation from wells has already been described at pages 130 to 135. The following statement shows the number of wells in each tahsil :—

Tahsil.	Pakka wells.	Kachha wells, dhenklis and jhalars.
Attock	2,079	693
Fatteh Jang	2,047	100
Pindigheb	1,294	49
Tallagang	889	117
District	6,309	959

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Irrigation from springs.

Almost all the land irrigated from springs known as *ábí* is in Attock Tahsil. There is a little in the Pindigheb Jandál and in Tallagang, as for instance at Tamman, but the area is trifling. In Attock there is no spring irrigation in the Chhachh and very little in the Sarwála. The total *ábí* area is 2,538 acres, of which 2,048 acres are in the Attock Nala. The best springs are those at Hasan Abdál and Wah, but there are other good springs in the bed of the Haro. Everywhere spring irrigation is perennial, and *ábí* lands are extremely profitable.

Section B.—Rents, Wages and Prices.

Conditions determining rents.

The rent rates in various parts of the District present a bewildering maze. The following table shows the proportion of the cultivated area held by owners or rent-free, or by occupancy tenants and tenants-at-will paying cash and kind rents :—

Tahsil or circle.	Held by owners or rent-free.	Held by occupancy tenants paying		Held by tenants-at-will paying	
		Cash rents.	Kind rents.	Cash rents.	Kind rents.
Attock	29	13	19	8	31
Chhachh	41	30	1	13	15
Sarwála	25	6	19	3	47
Nala	26	6	28	3	37
Fatteh Jang ...	34	3	16	...	47
Nala	15	3	33	...	49
Gheb	17	2	22	...	59
Sil Soan	62	4	1	...	33
Pindigheb ...	38	4	13	...	45
Jandál	45	2	7	...	46
Makhad	54	...	1	...	45
Sil	30	6	17	...	47
Tallagang ..	50	6	4	3	37
Whole District ...	39	9	12	2	41

The conditions obtaining in Attock Tahsil are different from those in any other part of the District, and will be discussed later. In Tallagang, the Fatteh Jang Sil Soan, and the Jandál and Makhad ilákas of Pindigheb ownership is largely by small proprietors, who cultivate their own holdings as far as possible. In these tracts there are in consequence few tenants with a right of occupancy. Competition cash rents are unknown, and tenants-at-will pay kind rents at customary rates. In Tallagang, as will be noted later, cultivating arrangements are very intricate. Many of the tenancies are merely ephemeral arrangements. Temporary exchanges of holdings are made, each owner being recorded as the tenant of the other's holding: or owners of two or more holdings cultivate jointly. Again hired labourers are employed, and paid by a fixed share of the produce. Generally tenancies are either friendly arrangements between owners or cultivation by servants, who often themselves have a little land. Rents are accordingly

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fixed by custom. The only exception to this rule is in the case of the not inconsiderable amount of land which has passed into the hands of *sahúkárs*, who will not rest satisfied with the customary rate of the countryside, but take very naturally just as much as they can get. Where the demand for tenants exceeds the supply, as it does in some parts, the *sahúkárs*, of course, cannot raise the rate, but elsewhere rents have a decided tendency to rise, though the process is a very slow one.

In the Makhad and Jandál ilákas of Pindigheb and in the Fatteh Jang Sil Soan, the Pathán, Awán and Alpiál owners nearly all work their own ploughs, though the large alienations in Pindigheb, and the universal military service among the Patháns of Makhad are not without their effect in diminishing the area of *khud-kasht*. The supply of tenants nowhere exceeds the demand, and at least in Makhad and parts of the Jandál the soil is poor. Rates accordingly rule low. In the Sil Soan the rates are higher as the yields are better. Elsewhere in Pindigheb and Fatteh Jang the land is largely owned by big non-cultivating proprietors. Among the Ghebas there is very little cultivation by the owners themselves. The Jodhras and Khattars cultivate in only a few villages, where holdings are comparatively small. To some extent cultivation is by servants and this accounts for the *khud-kasht* area, but as a general rule cultivation is through tenants. Everywhere custom is the main factor in determining the rent rates, and an attempt to force up the customary rents is violently resented. But there are two cases in which custom is not the sole rule. Money-lenders everywhere try to force up rents, and their disregard of established customs, and what are considered as established rights, is one cause of their extreme unpopularity in Pindigheb. Again, in addition to the share of grain, most owners claim other dues in addition, the strong owners marking their sense of their importance by the multitudinous character of the dues which they claim.

The share of straw ordinarily taken is one bullock-load per holding, but the Jodhra owners of the Khunda villages and the Sardar of Kot are recorded as taking half of all the straw and chaff. Sometimes 1 seer to 2½ seers per maund is taken under the name of haqq-bahoi or of malikana from the common heap. This is supposed to compensate the owner for the payment of kamins from the common heap and also for the speculation which goes on before division of the grain. The Sardar of Kot and some other owners collect also a small cash sum of a few annas per holding per annum. Many owners claim fees from kamins as ground rent and fees at the marriages of their tenants, as well as one sheep or goat annually from every herd. The kind rents paid by occupancy tenants are ordinarily the same in all respects as those paid by tenants-at-will, but the occupancy tenants are often, but by no means always, free from the petty dues which are additional to the rent.

Produce rents are by no means always paid by division of the crop on the threshing-floor and appraisement is very common, especially in the kharíf. When appraisement is done, each side appoints an arbitrator and there is little difficulty in mutually deciding on the estimated yield. When the yield has been estimated, the owner's share is worked out and paid over whatever the actual yield may be. This method is peculiarly fitted to the circumstances of the kharif crop, for cutting is always going on, and there is on one hand great danger of peculation, and on the other hand an attempt by the owner to supervise the harvesting operations causes constant annoyance to the tenant. The rabi crop is generally divided on the threshing-floor, but by special agreement appraisement is sometimes made for the rabi also.

In Attock Tahsil a large proportion of tenants are *makarridárs* or occupancy tenants, whose rents are fixed, chiefly in cash. The tenants-at-will are often owners or occupancy tenants of other plots of land in the same village. Their rents are customary, varied especially in the Chhachh by competition. The very varying degrees of fertility in the different circles cause corresponding variations in the rent rates. *Chahi* rates vary little from circle to circle notwithstanding the marked superiority of the Chhachh well cultivation. But, as a rule, kind rents are taken for the best well lands in the Chhachh, when let to tenants-at-will. It is a curious feature of this tahsil that generally speaking occupancy tenants and tenants-at-will pay the same kind and cash rents.

Produce rents.

In Tallagang the share of the produce taken by the owner is usually on unirrigated lands one-third. The percentage on irrigated lands is a little higher, being on an average about 40 per cent. The right to take a share of the straw is recorded in about 2 acres in every 5, but is not in practice often exercised. Even when a share of the straw is taken it is often merely one *chilli* of wheat straw per plough, with generally a full share of the more valuable straw of the pulses and of *charri*. In the rest of the Awánkári in Pindigheb Tahsil the ordinary rate is two-fifths, but one-third is common. In the Makhad iláka the ordinary rate is one-third, but there are whole villages on which one-fifth is paid, while one-fourth is quite a common rental. The tenants of the Jandál pay two-fifths on the best land, and one-third on distant and inferior lands. In the Pindigheb Sil the rent rates vary from village to village with bewildering variations. Generally speaking the Jodhra owners collect one-half in the eastern villages, the rate falling to two-fifths towards the west. It is everywhere common to find rates of from one-third to one-fifth fixed on newly broken upland, or on land newly embanked. The really strong owners fixed all their rents at one-half, and have no difficulty in finding tenants. In the Fatteh Jang Tahsil any rent lower than two-fifths produce is quite abnormal, and needs special explanation in each case. The rent rate in the Sil Soan is always one-half, and in the

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Gheb circle is nearly always one-half. In the Nala the usual rent is one-half, but there is a good deal of inferior land on which only two-fifths is taken. The general rule everywhere is that occupancy tenants and tenants-at-will pay the same rents. It is the exception for an occupancy tenant to pay less than the full customary rent.

In the Chhachh three-quarters of the tenants pay cash rents, but there is a considerable body of tenants paying in kind. The typical Chhachh rate is a half. The rate is generally the same on irrigated and on unirrigated lands. But there are considerable areas along the Indus, in the hills about Gorgushti and Malikmala, in the outlying portions of Shamsabad and in the corner near Attock where two-fifths, one-third and even one-fourth are taken. In the Chhachh, though this is not the custom in the rest of the tahsil, the proprietor usually takes the same share of the straw as of the grain. The same rates are paid by occupancy tenants as by tenants-at-will.

In the Sarwála circle the customary rent is one-third of the grain, and the tenant keeps the straw, except in the case of fodder crops, which are divided in accordance with the grain rates. On *cháhi*, *ábí* and *sailab* lands the owner's share is a half. But there are variations from these average rates.

In the sandy tracts four or five miles away from the village site, and beyond the reach of even drinking water, the landlord is glad enough to take one-fourth or even one-fifth of the grain. Round the village site and especially in the firmer soils along the Haro two-fifths is sometimes taken, especially in Khattar villages; and in the two large estates of Bariar and Shakardarra, owned by Sirdar Nawáb Khan Khattar, of Dreg, in Fatteh Jang, even more is collected. In his villages, for instance, land which would ordinarily pay one-third pays two-fifths, and land which in ordinary Khattar hands would pay two-fifths pays one-half, but rents are here, under the proprietor's orders, always wrongly stated, and the records on the subject are not trustworthy. The upward tendency in these two villages is an interesting example of the breakdown of customary rents. The change has been brought about slowly and at the cost of the extermination of the occupancy tenants, of whom now not one remains in Bariar and but few in Shakardarra. Sirdar Nawáb Khan's rents are always spoken of by other landlords as exceptional, but there are indications that in one or two villages near Campbellpur the proprietors are endeavouring to raise rents from one-third to two-fifths. At present, however, one-third is the prevailing rate.

In the Nala a half is the rate on *ábi*, *nahri* and *sailáb* lands. Elsewhere the general rate is two-fifths, and the tenant keeps the straw as in the Sarwála. In the Panjkatta tract the rate is half, and in the poor villages to the west of the circle one-third. In some Khattar villages also half is taken. On the whole the rents of tenants-at-will are fairly evenly divided between half, two-fifths and one-third.

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For ease of reference the average rents paid in each assessment circle are collected in the statement below :—

Circle.	Rents paid on	
	Irrigated lands.	Unirrigated lands.
Chhachh	$\frac{1}{2}$	$\frac{1}{2}$
Sarwála	$\frac{1}{2}$	$\frac{1}{3}$
Nala	$\frac{1}{2}$	$\frac{2}{5}$
Fatteh Jang Nala	...	$\frac{1}{2}$, $\frac{2}{5}$
Gheb	...	$\frac{1}{2}$
Sil Soan	...	$\frac{1}{2}$
Jandál	...	$\frac{2}{5}$, $\frac{1}{3}$
Makhad	...	$\frac{1}{3}$
Sil	...	$\frac{1}{2}$, $\frac{2}{5}$
Tallagang	$\frac{2}{5}$	$\frac{1}{3}$

Cash rents.

There are practically no true cash rents or fixed produce rents in Tallagang. The occupancy tenants who pay cash rents nearly all pay at revenue rates, *plus* a few pice or annas per rupee as *máliána* and are to all intents and purposes proprietors. The area they hold is small.

In Pindigheb and Fatteh Jang cash rents are equally rare. With few exceptions the cash rents recorded are not genuine competition cash rents at all, and amount to little more than the present land revenue and cesses. There are always a certain number of holdings in which the occupants are recorded as paying only the land revenue, or a small cash rental, and the total of these is the total of the areas under cash rents. The cash rents paid on irrigated soils are an exception to the above and are genuine cash rents. In the Fatteh Jang Nala cash rents are common on the best wells, Rs. 2 per kanal, or Rs. 16 per acre, being the usual annual rent. On a few superior wells as much as Rs. 3 per kanal is taken.

It is only in Attock tahsil, and especially in the Chhachh, that cash rents become of real importance. The proportion of the *cháhi*, *ábi* and unirrigated areas held by tenants-at-will paying cash is shown below :—

Circle.	Cháhi.	Abi.	Báráni.
Chhachh	$\frac{1}{18}$	...	$\frac{1}{7}$
Sarwála	$\frac{1}{8}$	...	$\frac{1}{33}$
Nala	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{50}$

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The same cash rents are paid by occupancy tenants as by tenants-at-will. The best wells in the Chhachh are cultivated by tenants-at-will on kind rents. For the rest the rent rates are much the same in all circles. As a rule Rs. 16 is the lowest rent taken anywhere from a tenant of well lands. In the Chhachh cash rents on wells run from Rs. 16 to Rs. 20 per acre. The average is about Rs. 17-8-0. The averages for the Sarwála and Nala wells are Rs. 16 and Rs. 17-4-0 respectively. The cash rents on the Nala *ábi* vary very much. The best Wah and Hasan Abdál lands are rented at Rs. 32 per acre. The average for the poorer *ábi* is about Rs. 15-12-0 the acre, and for the better lands about Rs. 21. The latter is the average of the *ábi* lands in Wah and Hasan Abdál which are more than half the total. More than half the large *báráni* area cultivated by tenants-at-will in the Chhachh is cash-rented. The average rent is in the Chhachh Rs. 2, in the Sarwála Re. 1 and in the Nala a little under Re. 1. *Sáiláb* lands rent for from Rs. 3 to Rs. 4 per acre.

The rents of *mokarridárs* will be mentioned later on. They are found chiefly on well lands. Those who paid a lump sum down at the time their rights were created, pay from Rs. 8 to Rs. 12 an acre. For others a common rate is Rs. 16 per acre. Many of their rents were fixed by contract.

There is no apparent tendency for cash rents to displace produce rents.

Wages.

Statistics of the wages of skilled and unskilled labour, taken from the Punjab Administration Reports, are given in Table 25 of the second volume. They show that the force of skilled labour rose between 1880 and 1885 and again in 1895, but has since remained constant at a maximum of 8 annas and a minimum of 6 annas. Similarly the wages of unskilled labour rose in 1885 but has since remained constant at a maximum of 3 annas per day and a minimum of annas 2-6. These figures cannot be considered trustworthy. All that can be said is that the wages of labour, both skilled and unskilled, have for long shown and still show a tendency to rise with the general rise of prices, but not to the same extent. There are no large labour centres in the District. The change is a very gradual one, and is not affected by temporary fluctuations in the prices of common food grains. Much of the labour is supplied by the agricultural population, and is not affected by the selling value of grain.

Village menials.

The village menials have already been described at pages 98 to 100. The customary payments made to them vary very much. They have been accurately calculated for each tahsil in the various assessment reports. The chief menials to whom payments are made are the *lohár* (blacksmith), *tarkhán* (carpenter), and *kumhár* (potter). The sweeper (*musalli*) frequently receives dues too. The shoemaker (*mochi*), and the barber (*nai*) are often paid out of the common heap, but by no means invariably.

There is no common standard of payment. In Tallagang the payments to *kamins* are always partly and sometimes wholly calculated at so much per plough. A very rough estimate gives 2,500 sérs as the total yield of a plough for both harvests. There are very few *lohárs*, the *tarkhán* being blacksmith as well as carpenter, but in that case he takes double fees. The almost universal rate is for each *kamin* 1½ sérs per local maund of 60 sérs or 2½ per cent of the total produce. In addition there are certain miscellaneous payments per plough (one or two sérs of cotton, a basket of *bájra* ears, and a few sheaves of wheat, and so on) amounting, on the whole, for *lohár* and *tarkhan* together to about 39 sérs per plough, or a little more than 1½ per cent of the gross produce. The total, therefore, for these two *kamins* is in this tahsil 6½ per cent. *Musallis* are not kept as regular *kamins* in Tallagang. The *lohár* very rarely receives any payment on well lands, as he is not concerned in the upkeep of the well and its appurtenances, but his place is taken by the *kumhár* or potter, who provides the pots for the well wheel, and whose dues are about the same as those of the *tarkhán*. The *tarkhán* and *kumhár* on wells each take 1½ sérs per maund of 60 sérs or 2½ per cent gross produce, as on *báráni* lands, and in addition certain miscellaneous dues *per well*, *e.g.*, *bájra* ears equal to about 6 sérs grain, 4 sérs cotton, one or two *kiáris* (or irrigation plot) of tobacco and garden stuff, and wheat equal to about 6 sérs. The total dues for each *kamin* on well lands in Tallagang are about 3½ per cent gross produce. It is not common in Tallagang to pay the other *kamins* such as the shoemaker, barber and washerman from the gross produce.

In Pindigheb and Fatteh Jang, as in Tallagang, one man often combines the duties of *lohár* and of *tarkhán* and gets a double share. The potter is only paid on wells, and not invariably then, for on some wells the pots are bought when wanted. The dues of the potter are the same as for the other menials. Only two menials are paid on any one kind of land. In every circle grain dues are paid from the common heap, and generally in terms of the total produce. In Makhad, however, the dues among Patháns are paid per plough without ostensible reference to the amount of the total produce. In reality the share of produce is nowhere fixed, but varies with the status of the proprietor and the character of the harvest. In addition to the grain dues a few sheaves of wheat, or a lapful of *bájra* heads, or a bundle of maize are always given, and these are always given as a rate per plough and are not a definite share of the whole stock. The Khattar villages are peculiar in weighing their grain, using standard weights, and do not use grain measures. Villages owned by Bugdiál Awáns always give a share which is practically equivalent to one sér per maund, and this practice prevails in all Bugdiál villages in all circles of Pindigheb. The dues of a single *kamin* vary from circle to circle. In the Fatteh Jang Nala and in

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the Jandál the average rate is 1½ per cent of the gross produce. In the Sil Soan 2 per cent is given, and in the Gheba and Síl Circle 2½ per cent for each *kamin*. The Patháns of Makhad give eight to ten sérs per *kamin* at each harvest per plough. This works out at about 2½ per cent of the total produce to each menial. In addition to the dues of the two *kamins* always employed about 1 per cent is paid to the sweeper (*musalli*). The shoemaker and barber are often paid out of the common heap, but by no means invariably. Their dues are about 1 per cent. About 2 per cent of the produce is paid to the outside labour called in to help at harvest time. In Attock Tahsil nearly every village has some different standard for measuring the dues of menials. The plough and percentages of the gross produce are the commonest measures. The fact is that there is no regular scale fixed. When the harvest is full, the allowances are liberal: when it is poor they dwindle to a nominal amount. On an average the *tarkhán* and the *lohár* get each about 2½ per cent of the total produce. In the Chhachh there is a distinct tendency to leave out the *lohár*, and pay him directly for work done. In good years the tenant does the reaping himself, but in good years a reaper is often employed and gets 5 per cent of the gross produce. When a reaper is not called in the *musalli* often gets an allowance amounting to from 5 to 6 per cent of the total produce. In all tahsils there is a distinct tendency for these customary grain payments to be commuted into cash, but the change is going on very slowly.

Prices of staple food grains.

The retail prices at head-quarters of the principal grains are shown in Table 26 of the statistical volume (Part B), from which the prices of wheat and *bájra*, the food staples of the District are extracted. Prices are stated in seers per rupee.

—		1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Wheat ...	...	10	17	24	15	8	11	17	11	11	19	13	17	16	15	18
Bájra ...	...	14	20	24	24	8	13	20	13	15	16	19	18	18	17	21

The prices are those prevailing on the 1st of January in each year. These figures show very clearly the chief cause of variation in prices. In the good years 1894, 1895, 1899 prices were unusually low, and in the years of scarcity 1896, 1897, 1900, 1901 the rates were very high. Communications are bad, and much of the District is very badly served with railways. The export trade is small, and has only a slight direct influence on the pitch of prices. Generally prices rise at once on the first sign of scarcity, but only gradually fall in more prosperous times, and never quite regain their former level.

Campbellpur prices are not quite a fair test of the general District rates. Tallagang wheat never finds its way to head-quarters, and communications south of the Kala Chitta are with Rawálpindi, Gujar Khan and Chakwál rather than with Campbellpur.

Within the last 25 years prices have risen here as elsewhere. In Tallagang the rise is from 30 to 36 per cent, and in Pindigheb and Fatteh Jang about 20 per cent. The recorded rise of kharíf prices is greater in Pindigheb and of rabi prices in Fatteh Jang. The rise in the prices of wheat and of *tárámíra*, the principal crops sold, is on the whole somewhat less than the all-round rise of prices. In Attock the all-round rise in prices is 34 per cent. Wheat which is the chief food staple, and also the principal crop grown for sale, has risen in price 25 per cent.

In this rise the improvement of communications, and especially the opening of railways, have played a great part. The rise is greatest in Tallagang, the most backward tahsil, where although the improvement in communications with the outer world has been no greater than elsewhere, yet the general rise in prices, caused by the extension of railways and by the development of the export trade, would naturally have a greater effect. In 1885 it was expected that the opening of the railway would depress prices in Attock Tahsil, but this gloomy belief was never justified. In addition to raising prices improved communications have tended to steady them, and there is no likelihood that the prices of cereals will again fall to any great extent.

Section C.—Forests.

Reserved and Unclassed Forests.

The District is very badly wooded, and, with one exception, the forests are forests only in name. Reserved Forests number 8 and cover 218 square miles. There are no Protected Forests. The Unclassed Forests, in number 36, extend to 142 square miles. The following statements give the names and areas of each forest in the district:—

RESERVES.

Name of Reserve.	Tahsils.	Area in acres.
Kala Chitta ...	Attock, Pindigheb, Fatteh Jang.	93,194
Kheri Mar ...	Attock	2,829
Kawa Ghar ...	...	3,725
Kaulial ...	...	1,207
Khairi Murat ...	...	13,267
Mari ...	...	7,508
Kot Khalán ...	...	2,223
Chinji ...	...	15,009

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Unclassed Forests.

Tahsil.	Name of rakh.	Area in acres.	Tahsil area.	Management.
Attock ...	Attock ...	4,721	416,781	Deputy Commissioner,
Fatteh Jang	Bagra Dhungi	268	554,246	Forest Dept.
		4,573	...	,,
Pindigheb ...	Makhad	7,624	959,635	,,
	Utrar	2,954		,,
	Jabbi	828		,,
	Tawin	8,717		,,
	Rakh Dhok Mila ...	2,220		,,
	Naka Kalan ...	1 442		,,
	Gokhi	1,001		,,
	Torabera	2,016		,,
	Saulian	4,992		,,
	Chhattri	7 668		,,
	Trap Narain	2,766		,,
	Guliál	16,998		,,
	Kot Chajji	248		,,
	Jalwál A	338		,,
	Jalwál B	1,057		,,
	Aranwal	670		,,
	Mán	3,261		,,
Tallagang ...	Chingi	171	767,075	,,
	Nakka Kahut	1,525		Deputy Commissioner.
	Chak Wahán	717		,,
	Kalri	272		,,
	Bari Rāmeshah ...	1,415		,,
	Suthwahan	1,074		,,
	Amánpur	1,387		,,
	Nariánwáli	2,352		,,
	Bhagur	1,313		,,
	Uchri	703		,,
	Dandi	607		,,
	Datwál Kalán	526		,,
	Nára	520		,,
	Faizanwáli	1,034		,,
	Jhantla	285		,,

For purposes of forest administration the Attock, Fatteh Jang and Pindigheb Tahsils are included in the Ráwalpindi Forest Division, and Tallagang Tahsil is included in the Jhelum Forest Division. The control of the Divisional Forest Officer, Ráwalpindi, extends to 5 Reserves, 17 Unclassed Forests in Pindigheb and to 2 Unclassed Forests in Fatteh Jang, but proposals have been made to Government to transfer the Unclassed Forests of Pindigheb to the direct control of the Deputy Commissioner. Of the Forests under the Rawalpindi Divisional Forest Officer the Kala Chitta alone is of any importance. By far the greater portion of it is in Attock Tahsil, but it also extends into Pindigheb and Fatteh Jang and almost 3,000 acres are in Rawalpindi. Its area is distributed approximately as follows among the several tahsils in which it lies :—

The Kala Chitta.

	Acres.
Attock	57,139
Pindigheb	22,641
Fatteh Jang	10,614
Rawalpindi	2,800
Total ...	93,194

It owes its origin to the assertion, at the first regular settlement of the District, of the right of Government to the extensive waste land, which from early historic times has been regarded as State property under every dynasty which has ruled the Punjab. Waste sufficient for the pastoral and domestic requirements of each village in the tract was marked off, and the remainder reserved as State property. These proceedings resulted in a tentative demarcation in 1865 of an area estimated at 111,053 acres as a Government *rakh* under the control of the Deputy Commissioner. In 1879 the whole area, estimated at 109,787 acres, was constituted a protected forest under the Forest Act, and in 1882 the actual area of the *rakh* was found by the Survey of India to be 98,575. During Revised Settlement 5,381 acres were excluded from the *rakh*, and in 1890 the remainder, comprising 93,194 acres, was created a reserved forest under the Act. The portions situate in Attock, Fatteh Jang and Rawalpindi Tahsils were placed under the control of the Forest Department in 1871, and the Pindigheb portion in 1887. The entire forest was surveyed by the Survey of India in 1880 to 1882, and maps on a scale of 4 inches = 1 mile prepared. On the north the range is of limestone formation, on the south of sandstone. The principal characteristics of the climate are aridity, great heat in summer, and a considerable degree of cold in winter with occasional occurrence of early spring frosts, sufficiently severe to cause some injury to the indigenous tree-growth, even when in a fairly advanced stage of development. Snow, sometimes, though rarely, falls.

In the early part of 1892 snow lay for some time to a depth of several feet on the higher peaks and ridges. There is no heavy timber. The forest presents essentially the appearance and characteristics of coppice growth composed chiefly of the wild olive, with *phulahi* and *sarnatha* as the chief auxiliary species. The undergrowth is nowhere dense, and consists mainly of *sarnatha*, *bhekar*, *garanda*, *patáki* and *bher*.

In respect of character and condition of the growing stock, the forest falls into three conspicuously marked natural divisions, determined mainly by the combined influence of geological formation and aspect. The tract north of the main ridge, which is by far the best wooded, is covered with olive forest *par excellence*. The slopes with a southern aspect are generally sparsely wooded, but in the valleys and on the northern slopes the forest growth is often dense, though generally rather open. The age of the existing stock varies considerably, the age and size of the trees being greatest in the west, and diminishing eastwards.

In the tract south of the main ridge the predominating species is *phulahi* (*Acacia modesta*). The most prominent feature of this tract as compared with the northern tract is the sparseness of the tree-growth. The hills often have a somewhat barren appearance. In the sandstone region the forest growth is merely a miserable,

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scanty scrub jungle composed mainly of very stunted, much injured *phulahi* bushes associated with a poor growth of *Salvadora* and *Capparis*.

The only kinds of rights, adverse to Government, existing in and over the forest are rights of way and water, rights of pasture, and rights of grass-cutting. 40,534 acres are burdened with rights of pasture and grass-cutting. These rights are appendant to 21 adjoining villages, and may be exercised only in respect of the villagers' own domestic requirements, and not for sale, and only in respect of animals which are *bonâ fide* the property of members of the right-holding village communities. Elephants, camels and pigs are specially excluded from the forest pasturage. The right of pasture is further subject to pre-payment of half-yearly fees, the rates of which are liable to quinquennial revision by Government, and the maximum number of animals of each kind entitled to forest pasture has been fixed at twice the number actually in possession of the right-holding communities at the time of enumeration during the forest settlement. The pasture rates in force at present (1907), and the maximum number of animals entitled to pasture are as follows :—

Kind of animals.	Current half-yearly fees.	Maximum number entitled to forest pasture.	Remarks.
Buffaloes	4 annas ...	1,136	No pasture fee is chargeable for young at foot.
Cows and Bullocks ...	2 " ...	10,031	
Horses, mules and donkeys ...	2 " ...	1,605	
Goats	1 anna ...	14,502	
Sheep	3 pies ...	12,401	

Government has reserved the power to change the localities of the grazing grounds within certain definite limits, provided a certain minimum area be uninterruptedly maintained for exercise of the pasture and grass-cutting rights. The right to cut grass may be exercised by each of the 21 right-holding villages only within the locality set apart from time to time for pasture of its own flocks and herds.

The only produce utilised is firewood, cattle-fodder (grass and tree-leaves), and to a small extent also timber, gum of *Acacia modesta*, and stone for building and manufacture of lime. Firewood is the chief item. The principal market for the produce is Rawalpindi, where firewood and grass are always in great demand and not readily obtainable at moderate cost from any other source of supply. It is probable that Rawalpindi could always dispose

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of the entire annual fuel outturn of the forest, but large quantities of the Kala Chitta firewood are consumed in the minor markets of Campbellpur, Fatteh Jang, Attock, Hazro, Hasan Abdál, etc. All these markets are situated within twelve miles of the forest boundary, except Hazro and Hasan Abdál, which are a few miles further away. Communications are excellent, and most of the roads are in direct communication with the railway system. The eastern part of the forest is traversed by three roads connecting Fatteh Jang, on the Khushálgarh branch railway, with Sarai Kála, Campbellpur and Hasan Abdál on the main line of the North-Western Railway. The Makhad to Attock road traverses the broadest part of the forest, and in the extreme west, near the bank of the Indus, is the road of the Customs Department. A few miles to the west of Fatteh Jang another road, leading from the Gaggan railway station to the village of Jabbi, crosses the forest and connects the Khushálgarh branch railway with the Fatteh Jang-Campbellpur road. Recently a good road has been constructed through the heart of the forest from Jhalár on the southern border to Akhori on the north.

In addition to these roads many tracks traverse the forest from south to north, and although rough and stony, they are mostly fit for laden beasts of burden.

The system of exploitation is by annual regeneration fellings. About half the forest is not in a condition suitable for exploitation. Elsewhere fellings are executed from November to February, 20 standards per acre being reserved with the object of seed production. Improvement fellings and thinnings are not needed. Regeneration is secured by the system of coppice with standards. Vigorous coppicing power is retained by *phulahi* and olive up to a great age. The primary aims of management are the permanent satisfaction of the pastoral requirements of the rightholders, the production of wood suited to the local demand and to the requirements of the neighbouring markets, and the expansion of the commercial value of the forest. The injury done to the forest by fire is too rare and insignificant to be worthy of mention.

Other reserves of the Rawalpindi Division.

The other reserves of the Rawalpindi Division are very poor indeed. Kawagar is leased to the Camel Corps at Campbellpur for grass on an annual lease of Rs. 1,000. The Khairi-Murat is the largest of these reserves. It is not burdened with rights, but the forest produce is so scanty that exploitation has never been possible, and there is no prospect of the forest being worked for a long time to come.

These reserves are bare hills with here and there a few olive and acacia trees and a little grass.

Unclassed Forests.

The remaining forests are high, barren, pebble ridges, the bottoms of stony ravines with the steep banks on either side, or long strips of bare rocks. Some of them have a little stunted

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phulahi and some scrub jungle, but nowhere is there any appreciable amount of wood. There is no reproduction anywhere, and protection leads to nothing in the way of improvement. A few have some good grass after rain, but generally grazing is poor. Leases are sold every year. Except in the Reserves, grazing of all animals is permitted on payment of fees.

Some of the rakhs contain a little culturable land. Patches here and there are leased out for cultivation. Forest management gives little trouble. The people have plenty of grazing, and do not encroach much on the forests. The village grazing lands, which are often valuable and well-wooded, are not seldom the subject of violent disputes between the owners and tenants.

All the large landowners make their own rakhs, in which they carefully preserve the wood and grass and allow no one to trespass. It is remarkable to see what an effective control the strong landowners have over their rakhs, and how great a change is produced in a few years by strict preservation. These rakhs are very unpopular with tenants, and are often made the subject of violent complaints, so much so that useful village rakhs have sometimes been thrown open to grazing and ruined by administrative orders. It is in general unwise to interfere with a work, which is in the main useful, and which, though a trouble to tenants, is beneficial to the best interests of the countryside.

Chirágáhs.

An account of the district grazing resources would be incomplete without a reference to the *chirágáhs* of Pindigheb, Fatteh Jang and Tallagang Tahsils. These are areas which were at Revised Settlement set aside by the people themselves for the grazing of the village cattle. Their areas and other particulars are given in the wajib-ul-arz of each village. It was agreed that they would never be brought under cultivation, but would be enjoyed by all the inhabitants of the village whether owners, tenants or *kamíns*. These areas were generally the portions of the waste then most suitable for grazing: often they were the bottoms of ravines or stretches of land which received moisture. When they were closed as *chirágáhs* their reservation caused no inconvenience, each man having already as much land as he could with ease cultivate. But with the increase of population an extension of cultivation became imperative, and the best portions of the waste came under the plough. As every one was anxious to extend his cultivation no one objected to the *chirágáh* being broken into, and much of these closed areas have now been broken up. This new cultivation is often the cause of violent disputes. In some villages the non-proprietary body is willing that the restriction on the *chirágáh* should be removed, elsewhere they insist on the maintenance of the grazing grounds. When two owners fall out, and especially in the Pathan iláka, it is a favourite method of annoyance for one man to apply to have the other turned out from the land he has broken up from the

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chirágáh. In M. Narrara a typical Pathan case occurred. A prominent owner immediately after settlement broke up a great deal of the *chirágáh* and sold the various fields to certain owners in the village. A few years later he applied to have them turned out of the land which he had sold to them, and on their eviction himself entered into possession. In many cases these *chirágáhs* exist only as entries in the Revenue Records. If they had been kept up as grazing grounds, they would have been exceedingly useful; but now their retention is chiefly a source of dispute and annoyance.

Tallagang Forests.

The Tallagang Reserved Forests lie along the skirts of the Salt Range, the Unclassed Forests chiefly along the Chakwal border and on the line of the Soan. They consist for the most part of blocks of broken waste ground, sometimes of insignificant size, cut off from villages which at the time of their formation were thought to have more waste than they required. The reserves are fairly wooded with shrubs and stunted trees but timber trees are almost always very rare indeed, while many of the *rakhs* produce practically nothing but grass and sometimes very little of that.

The following remarks are taken with some alterations from Mr. Talbot's Jhelum Gazetteer.

Our present *rakhs* had predecessors before British rule in the reservations, chiefly for sport, of the Janjua Chiefs, and the Sikh Kárdárs, whose example was followed in the unauthorised appropriations of waste with which the Customs official accompanied their assumption of control over the Salt Mines in the early years after annexation. The earliest reservations on a large scale were not, however, effected until the first Regular Settlement, when, partly as a solution of a series of bitter quarrels regarding the ownership of the hills, but partly also for climatic reasons, and to provide a reserve of wood and fodder, a large area of hill waste was demarcated by the Settlement Officer and declared to be Government Forest; it was also notified that Government reserved the right of appropriating, when and wherever it might be found necessary, all uncultivated land in excess of three times the amount of cultivation. It was on this principle that the Deputy Commissioner acted in carrying out the instructions issued in 1864 for a general demarcation of excessive waste in this district, which resulted in large additions to the old reserves, and the creation of a number of new ones: in the case of the more important hill *rakhs* the reservations, though sound on the whole, were faulty in detail, while in the plains the work was carried out with a great want of discrimination. Serious hardship resulted, and in 1875 the evils of the system in force attracting attention, Mr. Thomson was appointed to deal with the whole question as Forest Settlement Officer; his work resulted in the restoration of several minor *rakhs* to the estates from which they had been taken. Special rights and privileges were carefully enquired into and recorded; and recommendations made in regard to grazing, fuel, access to water-sources, and the like; it is largely because his recommendations were subsequently

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lost sight of that it was found necessary to go into the matter of the management of the forests again at the recent settlement.

As a result of the recent enquiry during the settlement of Jhelum District the following orders were passed by the Local Government:—

Management.—In regard to the Unclassed Forests in the plains, it has been decided that they will be managed by the Deputy Commissioner under the rules under the Punjab Laws Act, and not by the Forest Department; as the interests involved in the management of these *rakhs* are purely local, and they do not lend themselves to afforestation.

Grazing.—The following principles are to be observed, as far as possible, in the management of the grazing in the hill *rakhs*, those *rakhs* being set apart which can be wholly and strictly closed, two-thirds of the others should be open for nine months of the year and one-third should be closed to grazing throughout the year, but open to grass-cutting when necessary, camels and goats being excluded from half the open area; the grazing value of the *rakhs* to be assessed for five years, and the grazing to be leased to the villages of the neighbourhood, other villages being allowed to graze only on permit or payment of fees. The grazing assessment of a village may be distributed over the village as a whole, or the lease may be held on behalf of the estate by one or a few of the villages if that is preferred; in case of a breakdown of the system here sketched (and it is doubtful how far it is practical), if it becomes necessary to lease to individuals instead of to villages, the lessee should be carefully selected and should never be a mere speculator: and on no account should the old system of auction sales be reverted to.

The unclassed plains *rakhs* will be offered on five-years' grazing leases to the neighbouring villages: in case of breakdown, the remarks as to the selection of lessees above will be applicable, but in these cases there should be no difficulty.

The authorised scale of grazing fees is as follows:—

Detail.	Maximum rate chargeable by lessees of grazing contracts.	For permits issued departmentally when closed areas are temporarily opened.
	Per annum.	Per mensem.
Camels	16 annas	...
Buffaloes	6 "	4 annas.
Horses and mules, cows and bullocks ...	4 "	3 "
Plough cattle	1 anna	1 anna.
Donkeys	2 annas	2 annas.
Goats	1 anna	...
Sheep	½ "	...
Grass-cutter per sickle	8 annas	16 annas.

NOTE.—Young stock charged half rates; cattle belonging to outsiders from a distance with no claim on the *rakhs* pay double rates.

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Firewood from the hill *rakhs* is to be obtained on permits, to be issued at or near the spot, at the following rates :—

Camel-load, 6 annas; bullock or mule-load, 4 annas; donkey load, 2 annas; head-load, $1\frac{1}{2}$ annas for thick wood and 1 anna for brushwood.

These rates are equivalent to about 1 anna per maund, *plus* of course the labour and cost of collection and carriage.

Sale of wood thus procured is prohibited; and no cutting instrument is allowed within a *rakh*.

The plains *rakhs* contain little wood; dry wood may be collected by persons using the *rakhs*, subject to the warning that in case of wilful damage to green wood, the system of leasing the grazing to the villages will be suspended.

Wood for ploughs.—Trees fit for ploughs will be marked by the Forest Officer, and persons wanting wood for ploughs can take out a permit and select one of the marked trees, to be cut in the presence of the Forest Guard. The rates of payment will be 4 annas for large ploughs and $2\frac{1}{2}$ annas for small ones.

The plan of cutting and storing wood for ploughs for sale at convenient centres will be tried at the same time.

Forest fires.—These are very rare; but when they do occur the area damaged will be strictly closed for five years, the dead wood being cut down at once and sold by auction to the highest bidder.

Bad Boundaries, etc.—A report regarding the amendment of bad boundaries, provision of access to springs was made; and, as far as possible, all reasonable grievances of this kind have been redressed.

Section D.—Mines and Mineral Resources.

The District is not at all rich in minerals. No appreciable proportion of the population is engaged in mining.

Coal.

Lignite is occasionally met with in small quantities in the Khairi Murat Range, and an inferior description of anthracite is found in small quantities in the Pindigheb Tahsil, near the banks of the Indus. True coal, and not lignite, has been found in several spots on the north side of the Kala Chitta, notably near the villages of Mungi, Choi, Bágh Niláb and Soghánda Báta, where it was worked by the North-Western Railway. It is found in wedge-shaped pockets or small seams, which, when followed up, gradually taper out and disappear in shale. Some of these pockets at Choi and Soghánda Báta are in the hillsides, while others are in pits from 10 to 50 feet below the surface. The outcrops generally, but not always, occur in water-courses, the scour of

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the water having exposed shale, which on being followed up leads to coal. The coal is very friable, and rapidly crumbles to dust when exposed to the air. This is always the case with surface coal, the superincumbent strata being necessary to solidify it.

In 1882-83 several borings were made in the hills and also in the valley of the Haro. But after the surface shale and coal were exhausted, nothing was found but hard compact limestone in the hills, and sand, shingle and other alluvial deposits in the valley. A large quantity of the coal dust was mixed with cow-dung and compressed into cakes, and so used for burning lime and *surkhi* for which it was found cheaper than either firewood or charcoal. The coal was also largely used in the smithies and other works connected with the erection of the Attock bridge. A ton was sent to the Rawalpindi Gasworks, where it yielded from 7,000 to 8,000 cubic feet of gas and 13 cwt. of coke, which was considered a very favourable result. Coal is now worked only in the small pockets and seams on the northern slopes of the Kala Chitta. These are all very small undertakings with no effect on the economic condition of the District.

Gold.

Gold is found in the Indus and in the beds of various streams, tributaries of the Indus. The Reshi, the Síl and most of the large torrent beds in Tallagang are all the scenes of gold-washing, but the profits are very meagre and are already heavily taxed. The industry is carried on almost always by men of low caste, though in one village of Tallagang the ordinary land-owning classes also engage in it. The work is hard, the outturn precarious, and the average profits very small.

In the Attock Tahsil gold is found on the banks of the Indus, and the right to extract the precious metal is granted yearly to a contractor. Rupees 81 was paid for this right in March 1907. Gold is also found on the banks of the Raísh, Síl and other streams in other parts of the District.

In Pindigheb licenses are issued at a fixed rate per "Dhrún."

The mode of extraction is simple. 10 or 12 lbs. weight of the sand is placed in a shallow basin-shaped tray, called in the east a "Parátra" and elsewhere a "Dhrún," and this is repeatedly washed, the water and the light sand being repeatedly thrown off until a dark deposit with minute shining specks of gold in it is left. Mercury is then added to this, which unites with the gold grains to form a small nodule. The mercury is then detached by the heat of a fire, and a small globe of gold remains. The "Dhrúns" are generally owned by one person, and the gold-washing is done for him by paid labourers, who get a share of the profits which varies from Re. 1 per diem down to nothing at all when no gold is obtained. The average does not exceed Rs. 6 or Rs. 7 a month

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and gold-washing is now less common than it once was, as more permanent employment and certain return is to be got in many forms of ordinary daily labour, the rate of remuneration for which has risen greatly of late years.

Petroleum.

Petroleum is found in small quantities in the Kala Chitta and its immediate vicinity. It was worked only at Sadkál, on the south of the Kala Chitta, three miles from Fatteh Jang, on the road from that place to Campbellpur. Borings were first made in 1870, when a well was sunk at Sadkál. Later five borings were made, each 4½ inches in diameter, of depths varying from 50 to 100 feet. The oil was drawn out in small dipping tubes with ropes, bringing up about 2 pints of mixed oil and water. This was thrown into a cistern, from the bottom of which the heavier water was drawn off, leaving the oil above. For the first eight years the average outturn of oil was about 30 maunds per diem, but from 1878 the quantity of oil obtained from the wells gradually decreased, and the outturn fell to about 1,000 gallons per year. Attempts to increase the output by deepening one boring and sinking another to the depth of 800 feet did not lead to any appreciable difference in the quantity of oil obtained annually. No distilling or purifying operations were performed. The oil was sold in its raw state to the Rawalpindi Gas-works, and cost, delivered at Rawalpindi, from Rs. 16 to Rs. 20 per hundred gallons.

There is now practically no systematic exploitation of the oil-springs, and the annual out-turn is very small.

Petroleum much mixed with water is still to be seen in many holes and depressions in the Kala Chitta, but nowhere appears in workable quantity. In colour the oil is dark green by reflected light, and a bright golden yellow by transmitted light.

Other minerals.

Veined marble (*ábri*) is found in the Kawagar hill. It used to be worked into cups and other ornamental objects, but the industry appears to have died out, probably because of the great cost on account of the hardness of the stone and the absence of skilled labour. The pillars in the garden of Bairám Khán at Attock are made of this beautiful stone. Mortars and pestles of *ábri* are highly prized.

Lime.

Limestone is the chief stone of the whole northern portion of the Kala Chitta Range. It is burned by zamindars and contractors under permits granted by the Deputy Conservator of Forests. Most of the kilns are in the Kala Chitta Reserve and are worked by contractors. The chief purchaser is the Public Works Department and preference is given to their contractors. The kilns are limited to the amount of brushwood available. The refuse from the fellings, after the firewood cut has been stacked, is generally used for the kilns. Brushwood cut on the roads under construc-

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tion is also used. The fees paid vary according to the size of the kilns. Common rates are Rs. 9, Rs. 10, Rs. 12, Rs. 12-8-0 and Rs. 20 per kiln. Permits are issued by the Range Officer after sanction by the Divisional Officer. The revenue realised during the past three years and the number of kilns are shown below :—

Year.	Kilns.	Revenue from Fees.
		Rs. a. p.
1904-5	32	506 8 0
1905-6	21	307 8 0
1906-7	93	1,537 8 0

Section E.—Arts and Manufactures.

In arts and manufactures the District is poor. There are no factories and no large centres of population. What manufactures are carried on are simply for the satisfaction of the ordinary wants of a purely agricultural population. There is almost no export of manufactured goods, and no class of artizans has a reputation outside the district. The only possible exceptions to this rule are the snuff manufacture and shoe-making.

Snuff.

Snuff is manufactured in considerable quantities in Hazro, chiefly by Aroras and Kashmiris. It is also made in smaller quantities in Makhad and Pindigheb. The Makhad snuff goes across the river into Kohat, that of Pindigheb is for purely local disposal, the snuff habit being fairly general in the southern tahsils of the District. The chief customers of the Hazro manufacturers are the merchants of Amritsar, but a considerable quantity finds its way to Karachi. The whole output is exported through Lawrencepur station. The manufacture is carried on in a very small way, and gives employment to only a few people. There is nothing peculiar in the process.

Shoemaking.

The shoes of Pindigheb have a certain reputation. They are supplied to the surrounding agricultural population, and are also exported across the river into the Districts of the North-West Frontier Province. But the leather manufactures generally have diminished. Saddlery and shoes are the principal articles made. The former are manufactured in Pindigheb and Fatteh Jang, and cost from Rs. 5 to Rs. 20.

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Village Industries.

The other industries are purely village industries. A large number of lacquered legs for bedsteads (*chárpáis*) are made by the *tarkháns* of Ikhlás and Kamliár in tahsil Pindigheb. These fetch from annas 12 to Rs. 10 for the set of four, and are made of *shisham*, *phulahi* or *khair* wood. *Pihrás*, or low chairs, and spinning-wheels are also made by the same class in considerable quantities. The chairs cost from Re. 1 to Rs. 6. Other wooden articles also are constructed for sale in many of the villages.

The *lohárs* of Mianwala, Tahsil Pindigheb, make padlocks of iron, and stirrups are made at this village and in several places in Fatteh Jang and at Hasan Abdál. Iron vessels of large size (*karah*) are made at Makhad, and cost from Rs. 1 to Rs. 40 according to size. Baking plates are also made there. Reed-matting known as *phur*, is made in some villages in Attock Tahsil, and embroidered shoes, *chappris* and sandals (*kheri*) at Kot, Chauntra, Pindigheb and Hazro.

Country cloth of various kinds is made throughout the district. Blankets are manufactured in considerable quantities in parts of Pindigheb and Fatteh Jang. The barbers of Fatteh Jang and Pindigheb engage in the manufacture of *chhats* and *boris*, or packing bags, which are sold in Rawalpindi, Peshawar, and elsewhere in considerable numbers. Silk work of various kinds is done by the women of the Attock Tahsil especially. *Phúlkáris* are made in many places, those of Hazro being the best. The stone of the Kheremár hill, known as *ábri*, is worked into cups and other shapes in Pind Ter and Kawa, neighbouring villages. Soap of a common country kind is made at Fatteh Jang and Makhad.

There is now no manufacture of *kuzás*, or earthen-jars, at Fatteh Jang, as there is said to have once been. Oil is manufactured in many villages of the district, especially in Fatteh Jang, and a good deal of it is exported across the Indus.

Mr. Lockwood Kipling, Principal of the Lahore School of Art, recorded the following note on some of the industries of the district:—

"There seems to be no special manufacture of any kind in this district. Boats are built for use on the Indus at Attock and Makhad. Richly carved *chaukáts* for doors and windows are occasionally made as in other parts of the Punjab. From a village near Hasan Abdál some good cotton prints (*abrás*), rough in execution but fairly good in colour, have been procured. But while the district cannot be said to do a regular export trade in any special branch, it must not be imagined there is a total absence of industries. Here, as elsewhere, the cotton weavers complain that their trade suffers from European competition; and it is said they are turning to wool weaving."

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Means of Communication.

The chief imports are salt, cloth, rice, *ghi*, turmeric and cotton. Maize is imported from the Swát Canal tract. Cotton is brought from the Chenab Colony as the local production is insufficient to clothe the people. Sugar comes from Jullundur, rice and *másh* from Swát, rice from Kangra, and *ghi* and turmeric from Hazara.

Miscellaneous exports are women's *paijámas* and shoes, made at Hazro and exported to Peshawar and across the frontier, and wool blankets and hides. Timber comes from Kashmir, hardware from Amritsar and Gujranwala, silk from Jullundur, Amritsar and Peshawar, and country cloths from Amritsar and Ludhiana.

Goods are conveyed on bullocks, mules and camels, and in carts, which number over a thousand. As usual the bulk of the trade is in the hands of Khatris and Aroras.

Section G.—Means of Communication.

Railways.

Generally communications are excellent in Attock Tahsil, and either bad or very bad elsewhere.

The North-Western Railway main line runs through the Attock Tahsil from east to west, and in 1899 was re-aligned to pass through Campbellpur instead of keeping to the waterless tract four miles further north. From Golra in the Rawalpindi district, the Rawalpindi-Kohat branch takes off from the main line, runs through Fatteh Jang Tahsil below the Kala Chitta and on through Pindigheb Tahsil to the Indus at Khushalgarh. A light railway continues to Kohat and Thal, and a great bridge is now in course of construction across the Indus. Across these two lines the Mari-Attock Railway runs from Campbellpur on the north to Sohan Bridge on the south. A few miles south of Campbellpur it runs through the Kala Chitta. At Basal it joins the Kohat line, leaving it again at Jand, and running south along the edge of the Makhad Circle down to Mianwali.

The following are the stations on the various lines :—

Main Line.

Tahsil.	Name of Station.	Distance between stations, in miles.	Remarks.
Attock ...	Attock ...	...	
	Campbellpur ...	11	
	Lawrencepur ..	10	
	Burhan ...	5	
	Hasan Abdal ...	6	
	Budho ...	4	

Rawalpindi-Kohat Line.

Tahsil.	Name of Station.	Distance between stations, in miles.	Remarks.
Fateh Jang ...	Kutabal ...	...	
	Fateh Jang ...	7	
	Gagan ...	8	
Pindigheb ...	Chauntra ...	9	
	Basal ...	9	These four stations have also been entered in the Mari-Attock Line.
	Pind Sultani ...	3	
	Langar ...	11	
	Jand ...	3	

Mari-Attock Railway.

Tahsil.	Name of Station.	Distance between stations.	Remarks.
Attock ...	Campbellpur ...	...	
	Kanjur ...	...	
	Jhalar ...	11	From Campbellpur.
Pindigheb ...	Basal ...	8	These four stations have also been shown in the Rawalpindi-Kohat Line.
	Pind Sultani Road ..	3	
	Langar ...	11	
	Jand ...	3	
	Uchhri ...	9	
	Chhab ...	10	
	Injra ...	9	
	Makhad ...	7	

These railways are not equally valuable as means of communication. Attock Tahsil is exceedingly well served by the main line, which has the rich Chhachh close to it on the north, and the best part of the Nala Circle close on the south. The Mari-Attock Railway has its terminus at Campbellpur, and runs for about 9 miles through the Tahsil. It is not much used by the Attock people, but is gaining greatly in importance now that Campbellpur has become the head-quarters of a district. Some parts of the Sarwala are rather inaccessible from the railway, but generally the Tahsil has excellent railway facilities.

The other lines are primarily strategic and are of very limited commercial importance. The stations are numerous and desolate, but most of them do no goods traffic at all. Only Fatteh Jang, Basal, Pind Sultani, Jand and Injra, the last the station for Makhad

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Means of Communication.

and Tallagang Tahsil are of any importance. Much of both Fatteh Jang and Pindigheb Tahsils is completely out of touch with the railway. Pindigheb town itself is unhappily placed at the centre of the railway arc which circles through the Tahsil. All the stations are situated at the same distance of approximately 20 miles from the tahsil head-quarters, and all are equally inconvenient of access. The Soan Circle of Fatteh Jang is far from any railway, and much of the Pindigheb Sil Soan is equally badly placed. But the position of Tallagang is worst of all, as no railway passes through any part of the Tahsil. The Mari-Attock railway almost touches the north-west corner, but the Soan lies between it and the rest of the Tahsil, and it has done but little to open up the country. In this respect, however, there has been a considerable improvement within the last 20 years, for now railways completely surround the tract (generally it is true with 20 or 30 miles of difficult country between them and its border), while then the nearest railway station was at Jhelum.

The chief effect of railways has been to raise prices. The effect has been most felt in the most backward tracts especially in Tallagang, even although there communications are still bad. The gloomy forebodings entertained in 1885 in Attock Tahsil, that the extension of the railways would cause a fall in prices have never been realized. Throughout the district the effect has been both to raise and to steady prices.

A proposal at present is on foot to construct a branch line from Basál on the Kohat and Mari-Attock lines to Mandra on the main line. This line would pass near both Pindigheb and Tallagang and would open up both these Tahsils. The route is being surveyed.

Roads.

The Kala Chitta and the Soan are serious obstacles to communications and, roughly speaking, the tracts north and south of the Kala Chitta and Soan have their own systems of communications.

The chief connecting roads across the Kala Chitta are the Attock to Makhad road, and the roads from Fatteh Jang to Campbellpur and to Hasan Abdál. Across the Soan the chief roads are from Pindigheb to Tallagang and to Tawín. Within Attock Tahsil communications, except in the Sarwála circle, are excellent. The Grand Trunk Road runs parallel with the railway, save that it follows the old alignment, and does not go down to Campbellpur. From it a new metalled road, constructed in 1890-92, branches off at Hatti, and connects that important camping ground with Hazro. From Hasan Abdál a metalled road, laid down in 1893, runs up to Haripur and Abbottabad. The unmetalled roads, except that from Attock to Hazro, are what unmetalled roads usually are. Of the minor roads the Attock-Makhad road, and the Campbellpur-Choi road open up the Sarwála to some extent; the

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Campbellpur-Fatteh Jang and Hasan Abdál-Fatteh Jang roads do the same office for part of the Nala on both Attock and Fatteh Jang, while in the Chhachh there is the Hazro-Attock road. The Haro is a very serious obstacle to communications within the Tahsil, otherwise it is fairly easy to get from place to place.

In Fatteh Jang and Pindigheb the state of communications can only be described as difficult. The old military road from Rawalpindi to Kohat, which preceded the railway, is close to the latter throughout its length. It is a Provincial Road, roughly metalled in places, but of little importance and use. Between Fatteh Jang and Rawalpindi the old metalled road is entirely deserted by all traffic, even by regiments on the March, and every one follows a short cut by an unmetalled road. The Provincial Road from Attock to Makhad, once made with great labour, recalls the old importance of Makhad, but the steamers have left the Indus, both Attock and Makhad have fallen from state and nothing but the decaying road remains. Unmetalled District Boards roads are numerous and bad. The only unmetalled road which can be followed without hesitation by a stranger, is the road from Fatteh Jang through Kot to Pindigheb, and on to Kalabagh on the Indus. The roads of the Pindigheb Tahsil are all bad, mere tracks across the waste, but the Deputy Commissioner has recently made a road fit for wheeled traffic from Tallagang through Pindigheb to Basál Station, and Dâk tongas run from Tallagang. The experiment is interesting and deserves to succeed, but it remains to be seen what encouragement it will receive from the slow-going zamindar of Pindigheb and Tallagang, who has no sympathy with modern methods, and not the least desire to be improved. The railway is the central artery of main traffic and all district roads radiate from the various stations. The Soan circle, however, cut off from the rest of the Fatteh Jang Tahsil by the Khairi Murat and by the treacherous Soan, is most easily accessible from the south of the Rawalpindi Tahsil, of which it originally formed a part. Several fairly good roads traverse it along the Soan running from the Rawalpindi Tahsil towards Chakwál and Tallagang.

In Tallagang communications are worse than in any other Tahsil. There is no metalled road in the Tahsil, and wheeled traffic is non-existent. Fairly good roads connect Tallagang with Chakwál, Pindigheb, Tráp, Láwa, Pind Dádan Khán, and the Khushab Tahsil, and a fair road connects Láwa with Wánbhachrán station on the Sind-Ságar line. But all these roads are broken at more or less frequent intervals by ravines which have to be crossed often by a steep ascent and descent, with sometimes broad stretches of sandy and treacherous torrent bed between the two. On the south and west lie the hills of the salt range, while passage northwards is interrupted by the Soan river and by wide stretches of broken country.

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Means of Communication.
Halting Stages.

The following statement gives the chief halting-places in the District :—

No.	Route. From.	Route. To.	Halting place.	Distance in miles.	Remarks.
1	Grand	Trunk Road.	Hasan Abdál ...	7	2 Rest-houses, encamping ground.
			Hattian ...	18	Rest-house, encamping ground, Sarai.
			Gondal ...	6	Rest-house.
			Attock ...	7	Rest-house, encamping ground, 4 Sarais. Ferry. A very grand bridge to cross the Indus.
2	Attock.	Makhad.	Chhoi ...	16	Rest-house, Sarai and encamping ground.
			Lammidhan ...	7	Encamping ground.
			Pind Sultani ...	7	2 Rest-houses, encamping ground, Sarai.
			Jand ...	10	Rest-house, encamping ground.
			Jaba ...	9	Encamping ground.
			Lakaṛ már ...	11	Rest-house, encamping ground, Sarai.
			Makhad ...	10	Rest-house, encamping ground, Sarai, Ferry.
3	Tarnaul.	Khushalgarh.	Fatteh Gang ...	...	Rest-house, encamping ground, Sarai.
			Gaggan ...	10	Encamping ground.
			Kamilpur ...	13	Do.
			Pind Sultani ...	6½	See No. 2.
			Jand ...	10	Do.
			Khushalgarh ...	7	Encamping ground on Kohat side.
4	Basal Torga	Tallagang Road.	Basal ...	...	Rest-house, Sarai.
			Mianwala ...	11½	Rest-house.
			Dandi ...	11	Rest-house, encamping ground.
			Dhok Pathan ...	13	Do. do.
			Kot Sarang ...	8	Encamping ground.
			Tallagang ...	10	Rest-house, Sarai.
5	Tallagang. Lawa.	Lawa and Sakesar.	Mial ...	19	Rest-house under construction, Rais Khana.
			Lawa ...	19	Rest-house.
			Sakesar ...	14	Rest-house, Sarai and Munshi Khana.
6	Fateh-Jang.	Trap.	Kot Fateh Khan ...	12	Estate rest-house, encamping ground.
			Thatti Nur Ahmad Shah.	10	Rest-house, encamping ground.
			Dandi ...	13	See No 4.
			Nakka Tut ...	11	Rest-house, encamping ground.
			Trap ...	18	Do. do.

Waterways.

The only navigable waterway is the Indus river which forms the western boundary of the district for 96 miles. It is navigable for large boats of small draught as far as Makhad, which is in

CHAP II, G. Means of Communication.

the south-west corner of the district, and to which the steamers of the Indus Valley Flotilla used to ply. Country boats engaged in carrying grain, oilseeds and other merchandise, used to go up as far as Attock, but the navigation of the river between Makhad and Attock is difficult and dangerous. Above Attock the river is shallow and spreads over a wide bed. These boats carried on an extensive trade from Peshávar *viâ* Attock and Makhad to Sukkur, and other Southern ports on the river. When of average size they carried about 600 maunds, but larger ones carrying 800 maunds and 1,000 maunds were not uncommon. The opening of the main line of railway, and then of the riverside lines, dealt a fatal blow to this trade. Boats still ply on the river, but the volume of trade is insignificant.

Ferries

The following is a list of the ferries across the Indus, and of the mooring places :—

Name of River.	Station.	Distance in miles.	Remarks.
Indus ...	Attock	...	Railway bridge with subway for travellers. Mooring place and ferry.
	Haro	10	Mooring place for country boats.
	Bágh Niláb ...	7	Ditto and ferry
	Sujanda	5	Mooring place for country boats.
	Báta	5	Ditto.
	Pári	4	Ditto and ferry.
	Nára	5	Ditto.
	Dandi	5	Ditto.
	Mahri Japwál ...	5	Ditto.
	Khushálgarh ...	5	A boat bridge and mooring place for country boats.
	Ziárat Bela ...	8	Mooring place for country boats and ferry.
	Makhad	32	Ferry and mooring place.
	Rakhwan	4	Ferry by country boats and mooring place.
	Káni	3	Ditto.

Sarnás, or inflated goat skins, are also used for crossing the Indus at the following places :—Sujanda-Báta, Khúra Khel, Garhi Matanni, Waisa, Painda, Kámilpur Alam, Damán, Malláh, Aba Bakr, Adalzai, Tatari, Salem Khan, Asghar, Yásín, Momanpur, Jalália, Abdul Rahmán, and Shinka, all with the exceptions of Sujanda-Báta above the Attock railway bridge, are in the Chhachh iláka. These *sarnás* simply consist of a large inflated goat skin with a strap to go across the neck, and one for each of the rider's legs to be thrust through. The skin can be inflated at pleasure, and their owners will cross even rapid and dangerous rivers on them with great skill.

The ferries are annually auctioned and are controlled by the Deputy Commissioner, under whose orders the auction is held. Only the Makhad Ferry is managed by the Deputy Commissioner, Attock. The rest are in the jurisdiction of the trans-Indus officials.

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Famine.

Postal arrangements.

A list of post and telegraph offices will be found in Statement 31 of the Statistical Volume. In Attock tahsil there are many post offices and railway stations. Communications are good, and postal arrangements are satisfactory. But in the other tahsils post offices are few and postal facilities bad. In Pindigheb Tahsil the villages on and near the line of railway, and the Jandál iláka, are well supplied, but elsewhere, especially in the Kamliár district, on the line of the Soan, and in the central uplands, the despatch or receipt of a letter is an adventure. Fatteh Jang and Tallagang Tahsils are particularly badly off. The former has eight offices. Three are close to Fatteh Jang, three are in the populous Soan iláka, one is at Kot in a corner of the Gheb iláka, and one is at Bahtar in the Nala. The greater part of the Gheb and the Nala has no post office at all near. Tallagang has eleven post offices, placed at the principal villages. From branch post offices deliveries are made once a week, but circles are so large and the country so rough that it does not by any means follow that letters arrive every eighth day. To the zamindar south of the Kala Chitta, however, this is a matter of little moment, but to others it is a source of inconvenience.

Section H.—Famine.

Causes and Liability.

The only cause of real famine is failure of the rainfall. The great proportion of the population live on the land, and high prices in other parts of the province do not cause distress here. Migration into the district is small, and the increase of population far from abnormal. Of course calamities, such as hail and locusts, have caused distress; but famine has always been due to failure of the rains.

Much of Attock Tahsil is quite secure from famine. The Chhachh with its wells is almost completely so. Only portions of the Sarwála and Nala can be called insecure. In Fatteh Jang Tahsil the Soan iláka alone is even moderately safe against famine. The whole of the rest of the district is quite insecure. It depends entirely upon a precarious and always scanty rainfall, which must be timely to be beneficial. Untimely rain means scarcity: failure of the rains positive distress. Actual starvation is unknown. The district is so sparsely populated that, although it suffers periodically from drought, real famine is exceedingly rare.

Famines before British rule.

The popular memory recalls three famous famines prior to British rule. The three years' famine ending with the year 1783 A.D. (Sambat 1840) is commonly known as *chálíswán*. Wells and springs dried up, wheat could not be had for 3 seers the rupee, and the mortality among the people and the cattle was great. The two years famine ending in June 1813, when wheat sold at 7 seers, was not in severity equal to the previous one. The third famine was a two years' complete failure of crops ending September 1834. Wheat rose to 14 seers, then a very high price, and

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Famine

the distress and mortality were very great. The year 1833 A.D. (Sambat 1890) was known as the *markah* year. A plant of that name sprang up spontaneously everywhere in great abundance as soon as the first rain fell, and afforded great relief to both cattle and human beings. Of the famine of 1880 there is no record available.

Within recent times scarcity reached the pitch of famine only in 1896-1897 and in 1899-1900.

The Famine of 1896-97.

In 1896 the rains failed. In many parts of Pindigheb there was not enough moisture for sowings, and all the tanks dried up. Previous harvests had been bad. The kharif failed. A heavy fall of rain allowed late rabi sowings in Fatteh Jang but in Pindigheb there was no relief. The rabi crop was very bad everywhere. The distress was most among the cattle. The people could obtain food but there was nothing for the cattle. The poor people did away with their sheep and goats. The more enterprizing drove off their cattle to Jammu and Kashmir. Test works were opened in October, 1896, and remained open for six months. But workers were never plentiful, and the average number of workers in Fatteh Jang Tahsil in January, 1897, was only 17. Fatteh Jang was the only tahsil in which test works remained open for some time. In that tahsil in February the number of workers had risen to 69, and in March the Deputy Commissioner ordered the gang piece-work system of relief to be started in Attock, Fatteh Jang and Pindegheb in connection with a number of approved tanks. The rates of labour were Rs. 2-8-0 per 100 cubic feet for digging and carrying. In March, works were at a standstill everywhere except in Fatteh Jang Tahsil, where the numbers employed reached 157. Elsewhere the works had to be suspended as they were not resorted to, and did not prove the existence of famine. By the beginning of May the existence of famine was not felt, and there was no acute distress, except among the cattle. Large amounts were distributed in June and July 1907, to supply seed grain and to replace the cattle lost, and the district gradually resumed its old life.

The scarcity of 1899-1900.

The famine of 1899-1900 was not so severe as its predecessor. The monsoon of 1899 failed all over the Punjab, and these dry *báráni* tracts shared the universal fate. Both crops failed. Tank and even wells dried up, fodder failed, cattle died, and tenants wandered away in search of employment. The year was one of great scarcity and distress. Up till the 7th November it was not considered necessary to start relief works. When they were started at the sanctioned relief work rates (two annas to each man, one anna six pies to each woman, and one anna three pies to each child between seven and twelve years of age) no one was willing to work at these rates. Finally, on 9th February 1900, the Deputy Commissioner reported that it had not been necessary to start famine relief works in the district. To provide for the cattle,

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—
Famine.

however, the forests and rakhs, including all the reserves which had not been leased to contractors for grass cutting or grazing, were thrown open to grazing at fees reduced to half the usual rates. In addition, preparations had been made to obtain a supply of grass from Bombay Presidency, but by the end of March the famine was nearly over. Large sums were distributed under the Agriculturists Loans Act, but figures for the various tahsils are not available. Arrangements had been made to send 15,000 men to the Jhelum Canal to find relief for them there, but this measure did not prove necessary.

The chief security against famine is that the non-agricultural population is small, that the big owners can themselves weather the storm, and are expected to tide their tenants over the time of distress, and that much of the District supplies can be brought in from outside with fair celerity.

CHAPTER III.—ADMINISTRATIVE.

Section A.—Administrative Divisions.

CHAP. III, A.

Administrative Divisions.

Tahsils.

The District forms part of the Rawalpindi Division, and is in the charge of a Deputy Commissioner under the control of the Commissioner and Superintendent of the Rawalpindi Division. The Deputy Commissioner's head-quarters are at Campbellpur. There are four tahsils with head-quarters at Campbellpur, Fatteh Jang, Pindigheb and Tallagang. The first takes its name from Attock, the old tahsil head-quarters; the others are known by the names of their present head-quarters. Each is in charge of a Tahsildar assisted by a Naib-Tahsildar. Under the Tahsildar and Naib-Tahsildar are the Girdawar Kanunges, who again supervise the patwaris. The staff at the head-quarters of each tahsil includes, besides the Tahsildar and Naib-Tahsildar, one office Kanungo, one accountant (*wasilbaki navis*), one clerk (*siáh navis*), a sub-treasurer, clerks for the Tahsildar and Naib-Tahsildar's courts, an overseer, peons and menials.

Kanungos and Patwaris.

The following statement shows the Kanungo and patwari establishment for each tahsil and for the whole District :—

Tahsil.	Patwaris.		Kanungos.	
	Patwaris.	Naib-Patwaris.	Office Kanungos.	Field Kanungos.
Attock	60	3	1	3
Fatteh Jang	50	3	1	2
Pindigheb	50	3	1	3
Tallagang	42	3	1	2
Head-quarters	...	...	1	...
Total District ...	202	12	5	10

A patwari's charge includes on an average 3 villages in Attock Tahsil, 4 villages in Fatteh Jang, 3 villages in Pindigheb and 2 villages in Tallagang. There are three grades of patwaris, the rates of pay being Rs. 10, Rs. 12 and Rs. 14 per mensem. Field Kanungos receive Rs. 25 or Rs. 30 per mensem, the office Kanungos getting Rs. 40. The Sadr Kanungo is paid Rs. 60 rising by 4 rupees yearly increments to Rs. 80.

Village Headmen.

Each village has its headman or headmen, who are paid by a grant of 5 per cent of the village revenue demand. The total

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Adminis-trative Divisions.

number of lambardars in the District is 1,535. Their distribution by the tahsils is given in the margin. They are responsible for the collection of revenue, and are bound to assist in the prevention and detection of crimes and in the work of general administration. The office of chief headman does not exist in the District.

Tahsil.	Number of headmen.	Number of villages.
Attock ...	522	194
Fatteh Jang ...	534	205
Pindigheb ...	272	137
Tallagang ...	207	86
Total ...	1,535	622

Zaildárs.

In Tallagang Tahsil it has been decided by Government that the present system of *ilákadárs* is not to be replaced by the more formal *zaildárí* system ; the *ilákadári* arrangements which were first introduced shortly before the Settlement began, have since been very carefully reconsidered and revised and, it is hoped, placed on a more satisfactory footing ; there have been a certain number of complaints due to the changes made for some one is sure to be dissatisfied by any alteration, and the people of this District when dissatisfied have no hesitation in making the fact known. The new arrangements are believed to be working well.

It is perhaps as well to explain that an *ilákadár* is for all practical purposes a *zaildár* under another name ; but the greater elasticity of the rules under which the system is worked renders it more suitable for a tahsil like Tallagang.

In the rest of the District *zaildárs* were appointed during Settlement. The previous arrangement was to appoint only *inám-khors*, the *ináms* in practice being attached to no special circle. This system was found to work badly. *Ináms* were found to concentrate in certain families and localities, and large tracts were left with no *inamkhor* at all. In some cases one man enjoyed more than one *inam*. The regular *zaildárí* system has now been introduced, and is working well. In Fatteh Jang and Pindigheb it has to contend with family and tribal jealousies and quarrels, but care has been taken in the formation of circles and in making appointments to allow for the social peculiarities of these tahsils.

District staff.

The District staff consists of the Deputy Commissioner, who is also District Magistrate, an Assistant Commissioner who is in charge of the subdivision including the Pindigheb and Tallagang Tahsils, and three Extra Assistant Commissioners, of whom one is also District Judge, one is in charge of the Treasury and one is Revenue Assistant. The Police are in charge of the Superintendent of Police. The Civil Surgeon is Superintendent of the Jail. There are 2 Munsiffs for the disposal of civil case work.

Court of Wards.

The only Estate under the charge of the Court of Wards is that of Kot Fatteh Khan in Fatteh Jang Tahsil. It is managed by the Deputy Commissioner through a special Tahsildar deputed as manager. The total area of the Estate is 56,302 acres, of which

29,061 acres are cultivated. There are no debts, the total assets are about three lakhs of rupees, and the annual income about a lakh of rupees. The chief income is from rents. The ward, Sardár Muhammad Náwaz Khan, is a minor seven years old, and is at present being educated by a tutor. He has just been betrothed to a grand-daughter of the Mallik of Kalabagh.

Section B.—Justice.

The Judicial work of the District is supervised by the Divisional and Sessions Judge of the Rawalpindi Division.

Criminal Justice.

The staff for the disposal of criminal cases is the Deputy Commissioner, who is District Magistrate, 4 Magistrates of the first class (the Assistant Commissioner, Pindigheb, and the 3 Extra Assistant Commissioners), the 8 Tahsildars and Naib-Tahsildars and two Honorary Magistrates. The Tahsildars have magisterial powers of the second class, and the Naib-Tahsildars powers of the third class. Khan Sahib Muhammed Azim Khan has magisterial powers of the first class within the limits of Attock Tahsil, and holds his court at Hazro. The Manager of the Kot Court of Wards is an Honorary Magistrate of the second class.

The District is not markedly criminal, the amount of crime being considerably below the provincial average. But murders and culpable homicides are, as in the adjoining Districts of Jhelum and Rawalpindi, a prominent feature of the District crime.

Murders numbered 22 in 1906, 38 in 1908 and 24 in nine months of 1904. The figures for culpable homicide in the same periods were 9 and 6. Murders are seldom premeditated. When they are, or when an unpopular person has been removed, detection is almost impossible. The majority of murders are due to violent passions being suddenly aroused, and the handiest instrument, a stone, a *láthi*, or a knife is used. This class of violent crime usually springs from disputes about women or land, and is not confined to any one tract. Murder charges are difficult of proof, and men of violent passions, and many of the tribes answer to that description, find in murder a form of revenge, which is peculiarly complete, while the punishment demanded by the law is by no means inevitable. Generally the number of convictions in murder cases of the more important type is unsatisfactory. When plans are well and skilfully made and the murdered man was himself unpopular there is little chance of punishment following the offence.

Poisoning is almost unknown.

Grave offences against property are happily rare. Dacoities are unknown except when a predatory band comes across the

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river. Within the District there is practically no organised crime. A gang on the Grand Trunk Road for some time gave some anxiety, but the imposition of a punitive post has had the desired effect. In years of scarcity there is occasionally a more or less serious outbreak of crimes against property. Such crimes however, are not a normal feature of the District. There is a remarkable absence of cattle theft and forgery. Theft is a constant element in the crime of the District, but never reaches the provincial average. Petty crime generally is small, and the Tahsildars and Naib-Tahsildars have very light criminal work.

Offences under Special and Local Laws are principal offences under the Cattle Trespass and Forest Acts. The total number is small. The forest area is not large and there is little temptation to commit offences.

Civil Justice.

The Deputy Commissioner in this District is not also District Judge. That office is usually held by one of the Extra Assistant Commissioners, who superintends the administration of civil justice in the District. The Assistant Commissioners at Pindigheb and the Extra Assistant Commissioners have powers of Munsiffs of the first class. The four Tahsildars have got third class civil powers. In addition there is a Munsiff at Campbellpur and another at Pindigheb. Both have second class powers. There are no Honorary Civil Judges. Litigation is not very heavy. The population is almost entirely agricultural, and there are no large centres of population or trade. Suits for money take up most of the time of the Civil Courts. Other features of the civil litigation are matrimonial suits and suits for pre-emption. The Land Alienation Act of 1900 has brought about a steady decrease in the number of civil suits for the possession of land and has also had an effect on the volume of money suits. The Pre-emption Act and the Limitation of Loans Act have also had their share in diminishing litigation.

Local Bar.

The local bar includes one barrister, ten pleaders, of whom three are of the first grade and seven of the second, and four mukhtars. There are no revenue agents. Important Government prosecutions are undertaken by the Public Prosecutor, who does duty for both Rawalpind and Attock, and lives in Rawalpindi. Of the 57 petition-writers in the different courts of the District, 19 are of the first grade, and 38 of the second.

Registration.

The Deputy Commissioner is *ex-officio* Registrar. The Tahsildars are Sub-Registrars for their own tahsils, and Raja Bagh Ali is an additional Sub-Registrar at head-quarters for the assistance of the Registrar. The same causes which have effected a diminution in the volume of civil litigation have effected a reduction in the number of registrations. Registrations are gradually being confined to agricultural tribes.

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The following table shows the number of deeds registered and the fees realised during the years 1904, 1905, 1906 :—

Years.	Fees realised in Rupees.		Number of deeds registered.
	For registration.	For copies.	
1904 (9 months)	2,231	628	1,037
1905...	2,907	135	1,053
1906...	3,585	187	1,313

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Village Communities and Tenures.

The following statement shows the village tenures as broadly classified at the recent settlements :—

Tahsil.	Privately owned.				Owned by the State.	Total.
	Zamíndári.	Pattidári	Bhaiachára.	Total.		
Attock ...	13	100	81	194	6	200
Fatteh Jang ...	26	61	117	204	7	211
Pindigheb ...	9	6	118	133	22	155
Tallagang ...	1	6	78	85	18	103
District ...	49	173	394	616	53	669

Zamíndári estates are those owned by a single proprietor, or in common by more than one; *pattidári* villages are those in which each proprietor owns not the particular fields which he holds, but a specific ancestral share in the whole estate; *bhaiachára* villages are those in which every man is owner of only as much land as is in his possession, or as it is commonly put "possession is the measure of right." Few of the villages correspond exactly to any one of these types. Many of them are a mixture of two of them with the characteristics of one class predominating. Many of the *bhaiachára* villages are divided into *tarafs*, and in some of these villages, though classed as *bhaiachára*, the measure of right in one *taraf* may be ancestral shares, while in the rest of the village right follows ancestral shares. It is only in those parts of the District where outside interference, especially Sikh interference, was least that the villages closely approach any one type. The tendency is for all villages to become *bhaiachára* estates.

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The number of owners in a *zamíndári* estate increase and sooner or later the joint holding is split up on shares. The estate then becomes *pattidári*. Gradually the lands held by each shareholder become more and more unequal in value and extent, and possession diverges widely from ancestral shares. It then becomes necessary to do away with the old arrangement by shares, and to recognise possession as the measure of right, though for certain purposes, such as *malba* payments, the owners sometimes elect to continue to be bound by the old shares. The *zamíndári* estates are chiefly those belonging to the big Jodhra, Gheba and Khattar landowners. There is only one *zamíndári* estate in Tallagang, and that is owned by Sayyads. The six *pattidári* villages are owned by Gakkhars and Janjuas. All the Awán villages are *bhaiachára*. Of the 26 Fatteh Jang *zamíndári* villages 21 are in the Gheb *iláka*, and are owned by the Sardar of Kot and other big Gheba proprietors. All the Pindigheb *zamíndári* villages are owned by the Jodhras. There is not a single *zamíndári* village in the Makhad *iláka* and only one in the Jandál. The *zamíndári* villages of Attock Tahsil are mainly in the Nala circle and are owned by Khattars. *Pattidári* tenure is more common in Attock Tahsil than *bhaiachára*, the owners in these villages being Patháns and Khattars. With very few exceptions all Awán villages are *bhaiachára* estates. Some of the villages, *boná fide* estates held by one proprietary body, are especially in Tallagang, of enormous size, probably larger than in any other part of the Province. Láwa, for instance, exclusive of the great Láwa *rakh*, now included in the Government estate of Rakh Sakesar, is 16 miles long and 14 miles broad. Thohá and Tráp are a little smaller, and there are many villages which have about 10,000 acres. Narrara, which is the largest village in Pindigheb, has an area of 75,442 acres. Their position as chiefs of these enormous villages gives many of the headmen an importance not known among the peasantry elsewhere. In these huge estates the whole inhabitants are not massed together in one village site, but most frequently the actual cultivators of the soil live in scattered hamlets. There are sometimes as many as 30 or 40 of these hamlets in a large estate, some of them mere farm-houses, others considerable villages. In many cases it was found just or necessary, at the time of the Regular Settlement, to form such *dhoks* into separate estates paying a small annual sum to the parent village. But this was done only when the cultivators proved a more than ordinary degree of independence of the superior tribe. Where, however, both the villages, the parent as well as the *dhok*, were of the same caste, the Settlement Offcer allowed separation when claimed by the *dhok*, if he considered it strong enough to stand by itself.

Tenures.

It is a common-place to say that tenures owe their present form to the action taken by the Revenue Officials at the Regular Settlement of Rawalpindi and Jhelum Districts. Rights had never

been clearly defined or understood, ancient disorders and Sikh rapacity had produced the greatest confusion and wiped out from men's minds the memory of former relations. But in each District the confusion was least precisely in those tahsils which are now included in Attock District. In consequence, the land tenures of the District present few features of complexity. In the ordinary village there is the landowner who pays the revenue, occupancy tenants who generally pay in kind at the same rate as tenants-at-will, and tenants-at-will who always, except in Attock Tahsil, pay in kind.

The various forms of proprietary tenures known as *talukdári*, *álá* and *adna malkiyat* (superior and inferior proprietorship), the *chahāram* tenure and the *málik kabza* are all more or less the result of the unsettled state of proprietary rights in the village of the district at the time of the commencement of the British rule. In many cases these tenures represent a compromise between the claims of the older proprietors and those of the persons in possession at the time of the first Regular Settlement, who had borne the heat and burden of the day, had paid the Sikh demands, and were undoubtedly worthy of great consideration. But Sikh rule was established later in this District than further east, and was never so fully developed. Proprietary right, on the arrival of the British Revenue Officials, was found to be a matter of less uncertainty than in Rawalpindi and Jhelum. In Tallagang apparently the typical dispute was when an Awán family claimed to have superior right over the rest of their brotherhood. The claimant would show that, though the defendants were his relations, he had ruled the village entirely alone, and that under our rule he had taken grain rents even from his own cousin. But proprietary right of some sort was generally admitted. In the whole of Pindigheb and parts of Fatteh Jang and Attock, the Sikhs had maintained the proprietary body in much their old position. At Regular Settlement, rights in property were found fairly well defined. In the central tahsils the popular opinion recognised the big families as owners of the whole countryside and recognised the cultivating body as merely having a right of occupancy. Where the Jodhras, Ghebas and Khattars claimed proprietary rights they were in general admitted and recorded. But in Pindigheb the Malliks failed to realise the new value of proprietary rights, hitherto a burden, and ownership passed to the old cultivators. In Attock Tahsil, it is true, some tribes, such as the Tarkhelis, had been subdivided, driven to their Gandgarh fastnesses, and dispossessed of all their rights in this District; but there too the Sikhs caused less disturbance than usual.

Superior Proprietors.

In some villages at Regular Settlement, one class of persons was declared to be owners of the village, and the settlement of the estate was made with these, while certain others who had claims upon the estate were declared to be entitled to receive a

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talukdári allowance from those declared owners. Sometimes these rights were decreed in favour of a person or a family, sometimes in favor of a number of persons of one tribe. In addition to these *talukdárs*, the frequent disputes about the ownership of villages led to another distinction, and we frequently find *ála máliks* and *adna máliks* in the same village. The rights of *ála máliks* are not uniform. In Pindigheb the *ála máliks* sometimes are entitled to share in the common lands, but commonly they merely receive a *talukdári* allowance; the *adna máliks* being the actual owners and the persons settled with, and the only ones entitled to share in the common lands.

In regard to *talukdári* allowances, Colonel Cracroft said in his Settlement Report:—

"There have been few large cases in which *talukdári* allowances have been awarded to superior from inferior proprietors. The generality of these awards have been in recognition of superior rights exercised by some classes, who, though now debarred from the managements of the estates, yet received by prescriptive right certain dues, which they had acquired either from being rulers of the country, or from being managers during Sikh rule, or from being the real proprietors but dispossessed and receiving these small dues in acknowledgment of their original right."

The *talukdári* tenures are found in estates, and take the form of a surcharge on the revenue, varying from one pice to four annas per rupee of revenue. The total *talukdári* payments are Rs. 2,581. The recipients are usually the representatives or members of the leading family of the dominant tribes, who were generally allowed these dues as the last vestige of their former ownership or lordship of the villages which pay them. They have been recognised at successive settlements, and, having become stereotyped, are not open to dispute. The *talukdárs* are sometimes *ála máliks* of the village, and as such own all uncultivated land and have been recorded as *ála máliks* in the papers. Elsewhere, they have no rights of any description in the *talukdári* villages, except to receive these dues, and they have nothing to do with the payment of the revenue.

In a few villages, notably at Makhad and at Bahlol in the Fatteh Jang Nala, are found inferior proprietors paying a share of the grain to the superier proprietor who engages for the revenue. In Makhad indeed there are inferior proprietors, occupancy tenants and tenants-at-will, all paying exactly the same kind rents. The *talukdári* tenure is unknown in Attock Tahsil.

Chahâram Tenures.

Chahárams figure frequently in the history of the District. The *chahâram* was simply the grant of one-fourth portion of the kind revenue taken by the Sikhs to certain tribal chiefs and headmen, for their assistance in collecting it and for their general aid

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to the Sikh administration. It was thus essentially an alienation of revenue, for the Sikh took all that could be got from the cultivators, leaving nothing to them from which such a claim could be paid.

The claim of certain of these to *chahárams* was recognised by the British Government on accession to power over this District, and the allowance was made in various ways. It was much discussed whether these *chahárams* were alienations of revenue or proprietary profits, and the matter was finally dealt with, by giving to those whose claims were recognised, *talukdári* rights over the owners, and an *inám* from the Government revenue. The principle applied was that, as the people were no longer rack-rented and unable to bear any share of the burden, it was fair and right that they should pay a share of these allowances from the share of profits now left to them by an equitable assessment.

The Malliks of Pindegheb were the principal claimants of *chahāram* allowances, and their case was made the subject of a special report upon which the orders of Government issued continuing very liberal allowances to the then Malliks, and also making liberal provisions for their descendants. In certain other cases in which similar claims were made, *ináms* were granted to the claimants in lieu of *chahárams*, but these arrangements ceased on the death of the *inám*-holders. Ordinarily *chahāram* dues give no rights whatever except to the cash collections. In a few villages, however, the Malliks of Pindigheb are recorded as having a right to take a share of gram crops, and sometimes a share of produce. These rights are often the subject of litigation.

Liki Tenure.

A curious tenure, which prevails in certain Pathan villages of the Chhachh, remains to be noticed. It is that known as the *likevand*.

Mr. Dane has described it in detail in paragraphs 35 and 36 of his report on the Yusafzai Subdivision of the Pesháwar District. Briefly put the tenure consists in the allotment to each family or subdivision of the village of a long strip of land in each of the main quarters of the estate, so as to ensure that no one shall get the better of his neighbour. Inside the strip, which often runs to a length of half a mile, each member of the family takes so many spans according to his share, until, as subdivision increases, the resulting field tends, to quote Mr. Dane, to become "length without breadth." Mercifully the tenure is only found either in whole, exclusive of *cháhi*, or in part, in the twenty-two villages noted in the margin, and in several of these it is breaking up under the pressure of well-sinking. It is obvious that a well cannot be sunk to advantage in a field two feet wide and half a mile long, so when a man wishes to improve his property in this way, he

In whole.—Asghar, Salem Khan, Hamid, Pandak, Saidkhel, Wardag, Nasuzai, Barazai, Panjwána, Babhudi, Abubakr.

In part.—Shinka, Mominpur, Jalalia Allu, Daftar Gorgushti, Malikmala, Shahder, Bhangi, Khagwáni, Garhi Alizai, Adalzai.

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negotiates exchanges or purchases, and consolidates his holding. In one small village of 366 acres, in which there has been a rush to sink wells, re-measurement showed that some 2,500 mutations must be entered up to give effect to all the transfers which had taken place. That this tendency to consolidate will grow admits of little doubt, as the advantages of the *líki* tenure are purely æsthetic. There are few prettier sights than a *líki* village as it ripens in the spring harvest into a rainbow of wheat and barley, with here and there a sombre belt of gram.

Málik kabza.

The origin of the inferior proprietary tenure, known as the *kabza málik*, is thus described by Colonel Cracroft:—

"From the conflicting circumstances brought to light, and consequent, as before stated, on Sikh over-assessment, Mr. Thornton bethought himself of an expedient for recognising the rights of the cultivator without introducing into the settlement records the anomalous holding of a cultivator paying no rent to the proprietor. He decided that in all cases in which the person recorded as cultivator at Summary Settlement paid no rent to the proprietor, he should, under the circumstances of his particular case as proved by judicial enquiry, be recorded either as proprietor of his holding, *málik kabza*, in which case he was to exercise all the rights of property, and pay only the Government demand or cesses, or as cultivator paying rent to the proprietor. The tenure is an anomalous one for the *málik kabza* does not share in the village responsibility and enjoys no share in the common land or profits. It was, however, the only way out of a great difficulty.

"The practice has been to record as *máliks kabza* only individual cases and small holdings; wherever the holding was large and the class claiming proprietary right important, a share in the village common profits has been awarded."

Such proprietors are common in some parts of the District, and the status conferred on them seems to have been a very fair compromise between their claims and the objections of the other owners. These men paid no rent and were not, in fact, tenants in the ordinary acceptation of the term. They were often persons who had settled in the village in troublous times, or during the currency of Sikh contracts and had borne their share of the burden along with older proprietors, who were often only too glad to allow them to do so, and they were, therefore, clearly entitled to a higher status than that of a mere tenant.

In Tallagang Mr. Brandreth followed much the same course. Tenants who had acquired such prescriptive right that they could not fairly be made to pay a rent-rate were given the status of *málik kabza*. Mr. Brandreth wrote: "The *málik kabza* has often been called a copy-holder, but is really nearer the English free-holder, or owner of an estate tail, than anything else. The only limitation to his rights is the universal law of pre-emption; if he sells his land he must offer it first to the village

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owners. Latterly, he has sometimes been made to pay a small fee or seignorage due to the old owners, but this has not interfered with his rights of proprietor." The classes from whom the *kabza málikán* were drawn were chiefly members of the family of the original owners who had fallen into an inferior position, tenants of old standing who had become to all intents and purposes proprietors of their field, men who came into the village by gift or marriage, purchasers of particular fields, and those who were put in by the authorities of the time to manage the village during the dispossession of the real owners. The position of the *malik kabza* as described by Mr. Brandreth is this: he has full rights over the particular fields that he holds; but that is all; he "has no share in the rights and responsibilities of the village.......he is not responsible for losses, and therefore he cannot claim a share in the reduction arising from increased cultivation; he has only to pay the sum fixed at settlement and has nothing to do with the village.......There is this peculiarity that when the owners have no other means of meeting their losses, they can make their *málik kabza* a sharer and owner in the village, and call upon him to pay his share like the others."

If Mr. Brandreth intended that the *málik kabza* should be unaffected by alterations in the assessment of his village, his intentions have not been carried out; except in a few cases where lump payments were distinctly ordered, the *màlik kabza* pays the revenue assèssable on his holding in the ordinary way, and in addition *málikána* taken by the full proprietors, a percentage on the land revenue. The *málik kabza* now differs from the full owner only owing to the fact that he pays the *málikána* and that he has no share in the *shámilát.*

The opinion of Mr. Brandreth and Colonel Cracroft that the *málik kabza* has no share in the responsibilities of the village is now of doubtful validity. The *málik kabza* is, under the Land Revenue Act, a "landowner" and is liable under section 61. Even if it be held that he is an "inferior landowner," he is still, under proviso (6) and Rule 208, liable for the land revenue in the same way as any other owner. In Tallagang, the old *málikán kabza* whose status dates from the first Regular Settlement are of two kinds. The first class includes those whose *málikána* was fixed by separate orders of the nature of judicial decisions; the second and largest class contains those who were not made liable to the payment by any order of this kind. The *málikána* of the latter arises from the circumstance that when Mr. Brandreth reduced his original assessments these men were given no share in the reduction, and at the next settlement the proportion between their payments and those of the full owners was maintained, the difference being then for the first time treated as *málikána* at so much per rupee of the land revenue. The *málikána* rate thus depends not on the history of the particular holding, but

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on the amount of the reduction, from the benefits of which the *málikán kabza* were excluded by Mr. Brandreth's orders.

In tahsils other than Tallagang, it is not the custom for *málikán kabza* to pay *málikána* to the village proprietary. There the rates of *málikána* vary from 1 $\frac{9}{16}$ to 40 $\frac{10}{16}$ per cent, the lower limit being usually not much exceeded. In all tahsils there is now, besides these old *málikán kabza* of Regular Settlement, a body of new *málikán kabza*, who have bought land without a share in the *shámilát* since Mr. Brandreth's time. They pay no *málikána* except in a few villages in Tallagang, where in the recent *bachh* proceedings they agreed to pay, at the customary rate in the tahsil, one pice per rupee.

Warisan kabza.

In some villages of Tallagang there is a variaiton of the *kabza málik* tenure, the proprietors being divided into three classes :—

(1) *Asl málikán* or *asl wárisán*, (2) *wárisán kabza*, (3) *málikán kabza*. Their respective rights and liabilities are not everywhere the same; but in general the third class has, as usual, no share in the *shámilát*, the second takes a share therein calculated on its own holdings only, and the first takes a share calculated on the holdings of the *málikán kabza* as well as its own.

Size of Proprietary Holding.

The Assessment Reports contain detailed information as to the size of holdings. The figures for each assessment circle, irrespective of cultivated or uncultivated area, are given in the margin. The figures have no pretensions to entire accuracy, but are sufficiently accurate for their purpose. Generally, the rule is that in a circle without wells or other means of irrigation holdings are very large. In dry *báráni* tracts of this kind there is no room for peasant proprietary. The strong villages are villages of large owners who can wait for seasons of prosperity, and can afford to support and help their tenants in hard times. Subdivision of holdings in these tracts is invariably accompanied with depression and debt. In Tallagang, where the great proportion of proprietary holdings are cultivated by the owners, these areas are more than sufficient and even too large for really good management, but elsewhere they are the result of physical and political conditions.

Tahsil.	Size of Holding in acres.
Attock ...	27
Chhachh ...	6½
Sarwala ...	28
Nala ...	50
Fatteh Jang ...	19
Nala ...	49
Gheb ...	39
Sil Soan ...	6
Pindigheb ...	63
Jandal ...	16
Makhad ...	12
Soan ...	20
Tallagang ...	31
District ...	35

Tenant Right.

The tenants of the District may be divided roughly into three classes:—

(1) Mokarridárs.

(2) Tenants with rights of occupancy.

(3) Tenants-at-will.

The *Mokarridár* is the dark place of District revenue law. No one quite knows what a *mokarridár* is. He is found chiefly in Attock and Pindigheb Tahsils, and popular opinion varies between calling him an inferior proprietor or a sort of glorified occupancy tenant. It is said that the *mokarridár* is so called because his rent is fixed (*mokarrir*). Whether his rent can be reduced or enhanced at re-settlement is a moot point.

Some of the *mokarridárs* obtained their peculiar status in the same manner as the *málikán kabza* obtained theirs, and they claim to differ from them only in so much as they pay fixed rents to the proprietors. Practically, the right has always been acquired by sinking a well on another's land. The tenure exists in one or two *báráni* villages in the Attock Nala, but the *mokarridár* is ordinarily an outsider who was brought in to sink a well. In the villages around Hazro he is usually a Hindu shopkeeper, who paid a large *nazrána* on entering upon the land, and contracted to pay so much an acre as well, the amount varying very greatly. He usually holds under a deed, but is also found with a tenure reaching back to pre-British days, when no evidence as to *nazrána* is procurable. Another, and more ordinary form, is where no *nazrána* has been paid, and the *mokarridár* has been brought on to the land to open it up. He pays at very varying rates, amounting often to more than twelve annas *málikána* in the rupee of land revenue, together with land revenue and cesses, and ranging down to less than the land revenue and cesses. Between these two are cases in which cultivators have paid a small *nazrána*. Their rents are always full. Nearly all the *mokarridárs* in Tahsil Attock whose rents are fixed in terms of the revenue, are found in the Nala *báráni* villages. The *bárnái mokarridár* may be assumed, in default of proof to the contrary, to be an original landholder who came to be ousted through the fiscal policy of the Sikhs.

The truth seems to be that the *mokarridár* is a privileged tenant whose rent is fixed for the term of settlement, and can then be enhanced only if the revenue is raised. Although he has the power of alienation he is not a proprietor, because be does not possess the right to engage for the revenue. But he is not an occupancy tenant, because he has powers of alienation and because succession follows custom and not the provisions of the Tenancy Act. The payment made by him to the proprietor is of the nature of rent.

The well sinker was not regarded by our early settlement officials as acquiring so strong a title as the *adhlapidár* of Multan or the *taraddadkár* of Jhang. In later times the tenure has commonly been created by deed. The conditions of the tenure may be very various, and each case must be judged on its merits.

The rents paid by *mokarridárs* are very various. In Pindigheb the usual rate is a *málikána* of from 8 to 10 annas per rupee of

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revenue in addition to the land revenue and cesses. In Attock the rents almost defy analysis. They are low on good land and high on poor land in the most bewildering manner. The Hazro shopkeepers pay from Rs. 8 to Rs. 12 an acre a year, and let out the land on a rent of half-produce to tenants-at-will. Elsewhere Rs. 16 an acre is a common rate. The proprietor in either case pays the revenue. This leads to difficulties. The circle rate in the Chhachh at last settlement for wells was Rs. 5 an acre. The good wells round Hazro ought to be assessed at, at least, Rs. 10. As, however, the proprietor only got from Rs. 8 to Rs. 16 an acre, some hesitation was felt in imposing the full amount, and the absurdity was reached of assessing wells growing the best cane and tobacco at only Rs. 6 or Rs. 7 an acre.

Cháhdár.

In six villages in Tahsil Attock wells are to be found belonging to one person, but irrigating the lands of another. The owner of the well takes a water-rate (*ábiána*) from the owners of the land: the owner of the land is responsible only for the unirrigated rate fixed upon the land in the village distribution of revenue, the owner of the well being responsible for the water-rate. This is known as *cháhdár* tenure. The tenure is not and never has been recorded in the revenue papers, but the thing exists, especially in the villages round Hazro. The *cháhdár* is not himself a cultivator, but is a capitalist and usually a trader.

Occupancy Tenants.

The occupancy tenants of the District have obtained their rights in various ways. Some obtained their status by assisting the proprietors to bear the burden of the Sikh assessments; others obtained it as a compromise with the parties declared owners, the tenants agreeing to give up their claim to be declared proprietors of the village, which they despaired of proving, on condition of their being declared hereditary tenants. Many obtained it as a reward for giving evidence in favour of the successful, party in a claim for proprietary rights.

The regulation of tenant right was effected mainly at Regular Settlement, in Talagang by Mr. Brandreth, and in the other tahsils by Colonel Cracroft. Colonel Cracroft's account of the action taken north of the Soán is of interest:—

"Cases regarding the status of cultivators were contested with great warmth on either side. The cultivator tried to prove antiquity of tenure, the proprietor endeavoured to show that he, or his father, had located him, and had allowed him to remain on his lands, but that he was not, therefore, obliged so to continue him. The cultivator often pleaded that the proprietor had been in great straits, and had been rescued by the cultivating class, and that it was hard that he should be at the mercy of the proprietor in these good times, when in bad ones he would have made any sacrifice to retain him. He also claimed to have brought waste land under cultivation, to have improved it by manuring it, or raising embankments, to have

erected hamlets, planted trees, and the like. Sometimes the claim advanced was that he was, in fact, an original proprietor; such claims fall under the preceding section. All these claims and pleas were gone into *seriatim.* The rule of limitation was ultimately applied with the greatest reserve in favour of the proprietor, and it was found that it satisfied him. At first a more detailed classification was attempted, with a view not to injure the interests of the cultivating class. It was ruled, after consultation with the heads of subdivisions, that a cultivator who had brought waste land under cultivation, and had paid cash rates for 12 years or who had received cultivated land, paid cash rates, and had possession for 20 years, or who had received cultivated land, paid in grain, and held for 30 years, prior to settlement, should be recorded an hereditary cultivator. But at last the practice resolved itself into this, that 12 years' clear occupancy prior to British rule, *i.e.*, A.D. 1848-49, should, under any circumstances, constitute a title to an hereditary cultivating tenure. It was asked of the proprietor himself, as suggested by Mr. Thornton, whether he considered he would, could or would not or could not, oust a cultivator; in a great many cases he declared he would not; such a case was entered on what is called the *mudákhilat* paper, or statement of the rights and liabilities of cultivators, and considered at an end, unless either party subsequently came into court, endeavouring to show that his statement was incorrect, and that he had proof to substantiate his claim against that statement. The fact is that there is some difference in the tenures of the cultivating class in the eastern and western parts of the District. The cases in the former were first adjudicated. The preponderance of the Sikh power had rendered the position of the cultivator more secure, and such a burden had been imposed that, though theoretically the proprietor had the power of ousting the cultivator, practically he had never the will; while in the western part the revenue was lighter, the proprietor more powerful, and the Government weaker." Since the above remarks were written the Punjab Land Tenancy Act of 1887 has come into force.

Mr. Brandreth's action in Tahsil Talagang is thus described in the Jhelum Gazetteer:—

The regulation of tenant right in this District was mainly effected by Mr. Arthur Brandreth at the first Regular Settlement. During the Summary Settlements some tenants paid rents in kind; but the great majority paid in cash at the Government revenue rate and no more. They were thus on a practical equality with those whom we now recognise as owners. This equality was the natural outgrowth of the Sikh system, which generally refused to recognise any privileged status between the Government and the cultivator. Mr. Brandreth put an end to this state of matters. In every village he first defined and set apart those

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whom he considered to be owners. All other cultivators were distributed among four classes of tenants, of which the first three were granted rights of occupancy, and the last were the tenants-at-will.

These classes were as under, *viz* :—

I.—Ancient tenants, *asámí kadímí*, being those who had come in before the great famine of 1783.

II.—Old tenants, *mustakil purána*, who had been in possession about 50 years on the average (say from 1810 A.D.).

III.—New tenants, *mustakil naya* or *jadíd*, who came in after 1810, but were considered to have a claim to rights of occupancy.

All the above classes were granted rights of occupancy, or, to use the language of the District, were made *mustakil:* the fourth class comprised all the tenants-at-will or *ghair mustakil*. This system of classification only developed itself after the Settlement had been some time in progress; it was, therefore, never applied in Tahsil Jhelum, where only the broad distinction of *mustakil* or *ghair mustakil* was recorded. In the other three tahsils, however, it was generally enforced, but many modifications were allowed in individual cases, especially in the matter of rent, for the question of rents was also regulated by Mr. Brandreth. Rents in kind were recognised and maintained whenever it was possible to do so, and cash rents were regulated as follows :—The ancient tenants of the first class were charged the revenue rates and cesses with a small additional sum for *malba*. The old *mustakil* tenants or second class paid the revenue rates and cesses, together with a *málikána* of from two to four annas on each rupee of revenue. The third class or new *mustakil* tenants paid the same as the second class, except that in their case the *málikána* was put at from four to eight annas. In actually assessing the *málikána* the theoretical scheme was often a good deal modified. The cash rent of tenants without rights of occupancy could not of course be fixed, but the rate then existing was duly set down, and in practice it has not been very often since departed from. Such cash rents are, however, very rare. Mr. Brandreth intended that these rents should be recorded in the gross result merely, without details of the calculation by which it was reached; and it was further proposed that these gross rentals should be modified periodically in accordance with the price of corn. This part of the scheme has always been a dead letter; it was impossible to keep secret the details of the calculation, and in practice all the parties concerned have paid attention to nothing but these. No one has ever wished or attempted to have his rent re-valued upon a corn standard, and so it has come about that all tenants pay rentals in kind, or rentals in cash equal to the sum assessed

upon the land with cesses and with or without a *málikána* or *malba* surcharge of various amount.

In the record of the subsequent settlements all these rentals have been carefully maintained in their old proportions. They all take the form either of rental in kind, or of a payment of a *málikána* in cash in addition to the revenue and cesses now assessed upon the land, but the old classification of occupancy tenants has not been followed: it has no connection with the Punjab Tenancy Act, and is therefore practically obsolete: in the new record all tenants with rights of occupancy have been recorded as holding under either section 5 or section 6 of the Tenancy Act, and no further discrimination has been attempted. The practical result is that the most part of the old *asámís kadímí* with a few others have been placed under section 5; and the rest under section 6.

The status of occupancy tenant is not very clearly understood in the District. Everywhere they pay the same rents as tenants-at-will. Where the owners are strong the tenants are weak, and their rights are correspondingly contracted.

In the Chhachh, occupancy tenants pay cash rents almost without exception and are a satisfactory and prosperous body. In the Sarwála and Nala circles they are quite indistinguishable from the tenants-at-will. Here and there in these two circles, especially in the Nala, true occupancy tenants are found, tenants, that is, who have a status radically different from that of tenants-at-will. There they are the outcome of disputes as to ownership at one of the Summary or Regular Settlements. In such cases the knot was often cut by giving one of the claimants occupancy rights with the burden of the land revenue and a small *málikána*. Elsewhere, occupancy tenants seem to have been invented mainly for the purpose of preventing the proprietors from worrying over being proprietors. They pay the same rents as tenants-at-will and are subject to similar liabilities; and, except when some agitation arises, are treated by their landlords with the same liberality or severity. In the Sarwála circle especially, occupancy tenants also cultivate large areas as tenants-at-will under the same landlords, and this of course prevents them from emphasising their occupancy rights. They are, however, a weak spot in the agricultural economy. Even now, in villages along the Hassan Abdal and Abbottabad road, the proprietors complain loudly that their occupancy tenants have deserted their holdings to drive bullock carts up and down to Abbottabad, and escape ejection by throwing down on their land *taramira* or some such worthless crop, from which the landlord gets but little advantage. The same difficulty is making itself felt round Campbellpur, where the occupancy tenants tend to drift into the Cantonment, and it is significant that in the two neighbouring villages of Bariar and Shakardarra, which are owned by a single proprietor, the landlord has only got the full value out of the land by ousting, by fair means or

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otherwise, practically all his occupancy tenants. The difficulty is not indeed likely to diminish, but at present so little is the difference between the two classes of tenants recognised by the people that, in all the discussions about *khángi-paimásh*, the landlords have never thought of pressing their claims against the two classes separately.

Khángi-Paimásh.

The practice of *khángi-paimásh*, or private measurement, is perhaps peculiar to the Attock Tahsil. It dates from a time when tenants were hard to get, and applies to cash rented land only. It is accordingly found as a rule only in the Chhachh. The idea was that the tenant received a reduction on his proper rent, and this was managed by his being allowed to treat the *kanál* ($\frac{1}{8}$ of an acre) as consisting of only 16 or 17 instead of 20 *marlas*. By the time of the revised settlement this rebate had begun to break down, but it was recorded in the papers of several villages. At the current settlement it was found to exist only in a very few estates. In some of these, where harmony reigned, the parties agreed to express their rents in terms of the Government measure. In others, in which discord prevailed, the old entry has been retained. In some villages, as in Burhan in the Nala circle, the dispute is purely verbal. It applies only to the well irrigated land, and each party knows to a pice what rent is due on the well and no measurement ever takes place at all. But as the rate recorded is a rate on a measure of area subject to the deduction under discussion, the parties, who are on bad terms, delight to wrangle over the point. As a matter of fact, the sums actually paid correspond neither with the amount brought out by the Government, nor with that by the reduced standard, and are, in essentials, rents in gross on the various tenancies. As, however, neither party will agree to recording them as such for fear of losing a handy bone of contention, the old entries have been maintained, but the total amounts due have been added. It was in this village especially that it was noticed that the landlords never realised that their claim to have the entries altered could be made with greater effect against the tenants-at-will than against the occupancy tenants.

Size of tenants' holdings.

The marginally noted figures give the average size of tenants' holding for each tahsil and each assessment circle. It will be noticed that variations in the size of tenancies correspond with variations in intensity of cultivation. Holdings are smallest in the Chhachh, but there the tenants often own land of their own. In Tallagang also, where tenants' holdings are largest, tenants are often owners too. It is only in the tracts owned by big non-cultivating owners that a large body of landless

Tahsil.	Size of holding in acres.
Attock	2
Chhachh	1
Sarwála	3
Nala	3
Fatteh Jang	3
Nala	4
Gheb	6
Sil Soán	2
Pindigheb	4
Jandál	4
Makhad	5
Soán	4
Tallagang	6
District	3

people living by tilling other men's land is found. The difficulty in finding tenants is much the same everywhere.

Landlord and tenant

Mr. Kitchin gives the following account of the relations between landlord and tenants in the central tracts:—

To a strong owner, occupancy tenants paying kind rents are a source of strength not of weakness. They provide him with the nucleus of a tenantry, who have too much to lose to run away, while in most villages the occupancy tenants are also the tenants-at-will and the owner has no difficulty in keeping them in order. It is generally the custom to state that the owners of Pindigheb and Fatteh Jang are harsh and exacting owners. This is to some extent true, but it is not true without important reservations. Difficulties and quarrels between tenants and owners when they arise, and complaints against owners which sometimes overwhelm Government officials, are almost always indications that the owners are weak and that the old feudal relation between owner and tenant is breaking down. All large owners have munshis and agents, generally extremely corrupt, and these men stir up strife and derive benefit from the disputes which they originate. There are, however, still many owners who are able to keep their tenants in order, and their rule, though harsh, is by no means unjust or unreasonable. Sardar Fatteh Khan of Kot was the greatest of them all, and his tenants who feared him, admired and even liked him, while they certainly always obeyed him. The cardinal principle of the strong owner is that the tenant is a serf, without rights or privileges, but when this has once been admitted the tenant is not badly treated. In a good year the owner collects half the grain and often half the straw, with several small dues, but in a bad year he is always ready with remissions. Dues on marriages and rents from kamins are only exacted when the tenant or kamin shows any reluctance to give. The owner expects to be consulted before his tenants marry, but in return he helps them with the marriage expenses, and if any disputes arise, sees them settled. When any tenant is subjected to hardship, he may be sure that the owner will take up his quarrel, and the owners sometimes protect their tenants from the consequences of their crimes to an extent which does not commend itself to modern methods of administration. The straw which has been taken away is never sold, but forms a store upon which the tenant can draw in time of need, and loans so given are not collected again.

At seed time advances are made, and collected, without interests, at harvest times. When in need, grain or money is lent, or the village shopkeeper makes the advances on the owner's security, and collects again with his help, while the owner sees that he does not practise usury. Small rent-free grants are given to fakirs or mullahs, or to the widow and fatherless, and in every way the owner manages the affairs of his people down to the smallest detail. In return for all this, the tenant must do exactly what he is told, and his duty is

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by no means over when he has ploughed his field and sown the seed. He must turn out and cut grass and wood for the homestead, he may be pulled out of bed in the middle of the night to run errands, he must not do anything novel without asking for leave, and he must realise that it is not his place to get rich, but that he is entitled only to live and to feed his family, everything more than this belonging to the owner. There are few owners who can live up to this standard, but there are still a good many left among the Ghebas of the Gheb circle and among the Jodhras of the Sil. Khattars are nearly always unreasonable and harsh owners, and as a result cannot collect rents or keep tenants so easily as better men can do. The large rents recorded in the Kot estate and in Khunda *iláka* of the Sil circle, are not meant to be collected in full and the tenants could not live if such rents were collected in good seasons and bad seasons alike. The Kot estate is now under the Court of Wards, and I view with apprehension the future management in its effect on the tenantry. The paternal administration of Sardar Fatteh Khan, which was carried on by his successors, cannot be successfully continued by any Government official, and the tenants will have to pay the rents and render the services which prevailed before, without receiving the protection and assistance to which they are accustomed, and which alone render their rents bearable. In the whole of the great Kot estate there is not a single occupancy tenant paying at cash rents, and, generally speaking, the occupancy tenants and the owners in each village are the same individuals. Among hereditary owners the small and poor owner makes the worst master. He cannot exact forced labour and get his commands obeyed with the ease of the strong owner, but he exacts his full rent every year alike, and in addition tries to take more from tenants who are afraid to stand up to him. Moreover, he cannot afford to finance his tenants in times of distress and tries to squeeze just when he should be generous. Of all owners, perhaps, the Hindu money-lender is the most avaricious, grasping and unreasonable; so much so that the clinging of the tenant to the land which he once owned is used as a convenient lever of oppression. When disputes break out between owners and tenants, it may be said as a general rule that both are in the wrong. The dispute begins with some folly, generally about a woman, and extends into matters of rent and general administration, until the original cause of dispute is entirely forgotten and each side bandies charges of oppression and insolence which are entirely foreign to the real matter at issue. Attempts by the owners to preserve the timber and grazing from destruction are a fruitful cause of disputes, but here again such disputes only break out when the owners quarrel among themselves or are betrayed by their servants. Briefly, I do not consider that the owner is generally a bad landlord, he is often a very good landlord, according to the dim and misty light by which he guides his footsteps, but absolute subordination by the

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tenant is considered the corollary of consideration by the landlord, and as years go on, and feudal bonds relax, the tenant is less and less inclined to practise the unquestioning obedience which the landlord has been taught to believe his absolute due.

Revenue History up to the Current Settlement.

Tahsil Attock during Sikh Rule.

Up to the second Regular Settlement the tahsil of Attock was composed of five fiscal subdivisions, namely, Haveli, Sarkáni, Nala, Sarwála and Haro, the last for convenience being divided into two circles. Haveli and Sarkáni included the Chhachh villages. Sarwála lay south of these two and extended to the tahsil boundary on the south, and from the Indus to the Kherímár hill east and west. The rest of the tahsil fell into the other two *ilákas*, Burhan and the Khattar villages round Kot Sundki being in Nala and Hasan Abdál, Wah and the villages east in the Haro *iláka*. No fiscal history of these *ilákas* has been obtained prior to A.D. 1813. From this date to A.D. 1832, the Sikhs collected the rents by appraisement of crop. In A.D. 1833 Bhái Mahu Singh was appointed *kárdár*, and assessed the whole of Khattar containing the three last of the five *ilákas* above named. He resumed the *chahárams* of the Tarkhelís, inhabiting the mountain of Gandgar, and thus gave the final stroke to their entire dispossession from the *iláka* of Haro. He kept on better terms with the Khattars, and allowed them a *chaháram* out of the revenue. His assessment was succeeded by that of Misar Rám Kishen, which lasted until 1841. Diwán Sukh Ráj again assessed in 1842, and his leases lasted until 1846, and lastly Bhái Mahu Singh again returned and gave fresh leases in the year of the Regency.

The fiscal history of the *ilákas* of Haveli and Sarkáni, composing the celebrated and fertile valley of Chhachh, inhabited by Patháns who located themselves there, driving out the Dilázáks, during some of the inroads of the Pathán invaders, is pretty well known since A.D. 1813, when the Sikh power was fully established. Leased at first for about seven years to Chaudhri Mazulla of Músa Kudlati, who collected the rents by appraisement of the standing crop for Rs. 24,000, it was afterwards managed by successive *kárdárs* passing through the hands of the well-known Sheikh Imám-ud-din. They all collected by appraisement of the crop, until A.D. 1835 when Bhái Surjan Singh and Báki Rái were appointed *kárdárs*. They fixed moderate assessments, which remained in force for eight years. They were succeeded by Diwán Sukh Ráj who revised the assessments. These lasted until A.D. 1846, and in 1847 the Regency assessments were given out by Mr. Vans Agnew and Bhái Surjan Singh. A synopsis of these assessments is shown in the margin.

Iláka		1838-42.	1843-44.	1847.
Chhachh	Haveli ...	27,349	27,658	38,686
	Sarkáni...	41,245	44,836	53,097

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The great peculiarity in the fiscal history of the whole of this tract, including Chhachh and Khattar, is that during this period but few proprietors took up the leases, whole tracts containing many villages were leased to contractors. Thus at one time, Dewa Sháh, a wealthy trader, took the lease of a large portion of Chhachh. He was in 1864 an old man, quite ruined and reduced to the humblest circumstances. The Sikh assessments of *ilákás* Nala, Sarwála and Haro, which for convenience of assessment has been divided into two classes, are indicated in the margin.

Tahsil.	*Iláka.*	1838-39	1840-41.	1842-46.	1847.
Attock	Haro 1st	18,562	18,592	18,451	17,855
Do.	Haro 2nd	19,257	18,665	17,334	16,096
Do. ...	Sarwála ...	13,060	13,009	12,622	11,185
Do. ...	Nala ...	17,709	17,710	17,440	16,810
Fatteh Jang ...	Do. ...	14,625	14,608	13,802	12,069
Do. ..	Fatteh Jang	15,063	15,565	15,120	14,084

Tahsil Fatteh Jang under the Sikhs.

Fatteh Jang under the Sikhs was composed of the *ilákas* of Nala (part of the old Sikh *iláka* of which a portion has been incorporated with Tahsil Attock), Fatteh Jang, Asgám, Soán and Kot. The fiscal history of Kot will follow in the account of Pindigheb. The history of Asgám and Soán is that of Rawalpindi. These *ilákas* were directly managed by the Sikhs, the rates being enhanced as the Sikh power increased. The system was as usual *kankut*. In 1830 A.D., Mahárája Ranjit Singh, hearing of the grievous exactions of his officials, and of the unsatisfactory state of affairs, sent General Ventura to assess these and other tracts. His assessments were fair and even light, but following on a period of much depression and overtaxation it was with difficulty they were realised. In addition, the agents who had to carry out these fiscal measures were rapacious and exacting, and gave the lessees no chance.

Warned at last of increasing disaffection, Mahárája Ranjít Singh summoned the heads of tribes and villages to Lahore, treated them with hospitality and distinction, fixed comparatively light assessments, and sent them back to their homes, assured that what they had suffered was not at his hands, but was the work of his officials. He conferred on them a still greater benefit than even the light assessments, for he sent to realise them Bhái Dul Singh, a man of known integrity of character and amiable temper, whose name was long remembered as a just and faithful steward. Dul Singh administered these *ilákas* for two years, and was succeeded in A.D. 1840 by Diwán Kishankor of Siálkot, whose incumbency lasted until 1846. He raised the revenue and overtaxed the people. The land was visited, during his rule, by swarms of locusts so vast as almost to cause a depopulation of the country. They remained three seasons, namely, from Kharíf Sambat 1900 = A.D. 1843 to Sambat 1901 = A.D. 1844. This calamity is known by the name *Makrimár* throughout the District.

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Nevertheless, the Government Agent allowed no consideration, and although the zamíndárs had no crops, he realised the revenue to the last farthing. Chiefly from this period dates the indebtedness of the proprietors to the trading class, which has reaped a rich harvest from their misfortunes; and to this time principally must be referred that complication in the tenures and transfer of proprietary rights to the cultivating class, which have entailed so much hardship on the proprietary body, and loaded our courts with so large an amount of litigation. Unable to realise the demand even under these circumstances, the Government Agent often introduced cultivators of his own, gave them a fixed terminable lease and virtually admitted them to a title to the proprietorship of the holding. In short, the cultivating class had to put its shoulder to the wheel, and help the proprietor out of his difficulties, or the latter would have been entirely dispossessed. Diwán Kishankor was succeeded by the same Bhái Dul Singh who had preceded him; he again reduced the demand to something more resembling the figure at which it stood before Kishankor's incumbency.

The *darbár* papers and other sources show the Sikh assessment for these *ilákas* to have been as follows:—

Name of *Iláka.*	NAMES AND JAMA OF SUCCESSIVE SIKH KARDARS.		
	Dul Singh 1833-1839.	Kishankor 1840-1846.	Dul Singh 1847.
	Rs.	Rs.	Rs.
Asgám	24,824	30,289	27,074
Soán	46,148	48,296	46,979

Tahsil Pindigheb under the Sikhs.

The tahsíl of Pindigheb was composed of the *ilákas* of Síl, Khunda, Jandál and Makhad. The Sikhs were longer in taking the management of this comparatively unprofitable tract, inhabited by the hardiest races the District contains, than any other portion of it. They at first farmed the three first *ilákas*, together with other tracts of the Jhelum district, for the annual sum of Rs. 6,900 to an ancestor of the Malliks of Pindigheb, Mallik Amánat, who collected the rent by appraisement of the crop. He was followed in *iláka* Síl by his son Mallik Nawáb, and in *ilákas* Kot and Kunda by Rái Jalál, ancestor of Sirdár Fateh Khan Gheba, of Kot, who also collected the rents by appraisement of the crop. Mallik Nawáb rebelled and died in exile, and enhanced leases were given to Mallik Ghulám Muhammad, grandfather of the present Malliks of Pindigheb, Aulia Khan and Fateh Khan, and to Rái Muhammad Khan, father of Sirdár Fateh Khan Gheba. They also appraised the crop. An interval of two years intervened when Jodh Singh, Kárdár, collected by appraisement and the revenue was then farmed by Mahárája Ranjít Singh to Sirdár Dhanna Singh Malwái, who, utterly unable to cope with these

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sturdy zamíndárs, sublet the lease again to Mallik Ghulám Muhammad and Rái Muhammad Khan. But the Mallik and the Rái failing to fulfil their contract were summoned to Lahore. Some altercation ensued as they were leaving the Mahárája's darbár, during which Rái Muhammad Khan cut down Mallik Ghulám Muhammad and fled. His offence was condoned and a fine imposed. In A.D. 1833, these *ilákas* were given to Sirdár Attar Singh Kálawála. He collected with difficulty by appraisement of crop. In 1834, his agent, Sultán, was killed by the Khunda Ghebás. Cash assessments were fixed in supersession of the appraisement system, which was not found to answer; but these did not fare much better. The *ilákas* were then given to Kuar Nau Nihál Singh, grandsonof Ranjít Singh. The rates at which his agents collected are said to have been very heavy, and realised with difficulty.

The tract was again given to Sirdár Attar Singh, Kálawála, who this time was determined to get rid of one of the most troublesome of the subjects of the Mahárája. He invited Rái Muhammad Khan, loaded him with presents and honours, and immediately left for Pesháwar. On his return six months after, he invited the Rái to the Fort of Pag, situated about a mile from his hereditary seat, Kot. With the recollection of his former reception fresh in his memory, Rái Muhammad Khan would not listen to the advice of his retainers and friends to take an escort, but went to the Sirdár with only a couple of followers. Scarcely had he set foot inside the fort, when he was attacked by Budha Khan Mallál and others, and cut down. Sirdár Fateh Khan, his son, lived to avenge this treacherous murder by the wholesale slaughter of Budha Khan's family, leaving only the latter and a young nephew, who are still alive, and are, as may be supposed, the bitter enemies of the Sirdár. In 1845, the *ilákas* were given iu farm to Mallik Fateh Khan, Tiwána, of Shahpur. He managed them for one year, partly on the appraisement system and partly on cash leases. In 1846, Misar Amín Chand appraised the spring, and Diwán Rájrúp the autumn crop, and in 1847 the revenue was collected in cash.

The fiscal arrangements of this tahsil were involved in inextricable confusion, the collection of the revenue was generally a skrimmage, and therefore it is almost useless to found an argument on cash leases which were never acted on. Still, as the information has, as far as possible, been collected, it is given below *quantum valeat*:—

Tahsil.	*Iláka.*	1838.	1839-41.	1842-44.	1845.	1846-47.
Fatteh Jang ...	Kot ...	20,168	20,179	20,167	19,896	19,859
Pindigheb ...	Sil ...	...	...	45,012	45,774	40,594
Do. ..	Khunda ...	...	...	5,337	3,883	4,780

The distinctive feature of *ilákas* Pindigheb and Fatteh Jang is their *chahárum* tenures. Whether the Sikhs collected by appraisement of crop or by fixed leases (which it has been seen were seldom if ever acted up to), they deducted a *chahárum* or fourth part of the receipts in favour of the proprietors. The families who enjoyed this proprietary profit were the Jodhrás of Síl, the Ghebás of Bálagheb, the Mughals of Khor, and a Pathán chief of Makhad, and also some Khattars in Khattar.

The *iláka* of Jandál, though for geographical reasons it now forms part of tahsil Pindigheb, used formerly to be in the Sikh subdivision called Khattar; it is inhabited by Khattars. Its fiscal history is, therefore, much the same as that of the other *ilákas* of Khattar, namely, Sarwála, Nala, Haro, and Fatteh Jang. Bhái Mahu Singh framed the first assessments, but it is very uncertain how far they were acted on. The only difference is that it was held in *jágír* by Sirdár Nihál Singh, who is said to have collected the rent by appraisement of crop; yet there are leases extant. He was succeeded by Mallik Fateh Khan, Tiwána, in 1845. The Mallik was followed by Diwán Rájpúr. The management is stated to have been by appraisement. In 1847 a cash assessment was attempted, but was not realised in full. It was always a troublesome tract. The collected statistics, shown in the margin, are under the circumstances given with diffidence at what they are worth.

Iláka.	Sirdár Mahu Singh.	Fateh Khan, Tiwána.	Rájrup, etc.
Jandál ...	48,070	40,.25	44,312

Iláka Makhad is situated at the extreme south-western point of the District. The *iláka* contained two parts, five villages, the *jágír* of the Mattu Sirdárs, and seven villages Makhad (proper), inhabited by the Sagri Patháns, of whom Sirdár Ghulám Muhammad Khan is the chief. The township of Makhad was always held by the Sikhs under direct management. It was a considerable trading mart. The remaining villages paid a very light assessment. The general result is as follows:—

Iláka.	Detail of villages.	1842 to 1847.
Makhad ...	Five villages of an old *iláka* called Jabbi being part of the Mattu jágír.	2,941
Do. ...	Makhad proper, seven villages ...	2,173

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Tallagang under the Sikhs.

Mr. Brandreth thus describes the system under which the Sikhs assessed and collected their land revenue in Tallagang:—

"In the Sikh time the cultivators usually paid by what was called the *bigha* rate; the *kárdár* and the appraisers of the crops would select a fair field and very fairly calculate the produce by the eye; a deduction of one-tenth would be made for the village servants, and half the rest taken as the Government share. The field would then be roughly measured by a man's paces, or the area guessed, they can do this with unusual accuracy; the produce per *bigha* of this field was thus calculated as an average *bigha*; the *kárdár* would afterwards visit each field of each owner, examine the standing crops and assess it as equal to so many average *bighas*. It was here that the owners gained; they were, it is true, allowed nothing from their cultivators except where they were a very powerful body, and had to be conciliated, but their headman accompanied the *kárdár*, and by assessing the cultivators highly, induced the *kárdár* to treat their own fields with considerable leniency: of course, a system like this gave enormous opportunities for fraud and favouritism.

"The number of *bighas* agreed upon was entered against each man, and as soon as the price of grain for the harvest was fixed, the value was calculated. And the village money-lender had to advance the whole, or a large portion, of the amount to the *kárdár*. The *kárdár* then aided him in collecting the corn from the tenants. When the villagers obtained a fixed contract they followed the same system, only modifying it by fixing the number of average *bighas* each man's land was equal to, and then dividing the sum due by this number, and consequently when they came to make a permanent division they assessed the different sorts of soil as equal to so many *bighas* at the worst soil, and divided the revenue accordingly."

There is very little trustworthy evidence as to the amount of the land revenue under the Sikhs. The *kárdárs* took as much as they could get. The professed standard of taxation in Tallagang was one-third of the gross produce. Mr. Brandreth calculated the Sikh demand for Tallagang at Rs. 99,698.

Settlement under British Rule. The Summary Settlements.

In Tallagang the first Summary Settlement was made immediately after the second Sikh War by Mr. Bowring, and was somewhat severe. The standard of assessment was two-fifths produce or the Sikh demand, whichever might be lowest. The second Summary Settlement of 1852, by Major Browne, was intended to correct the more obvious inequalities of the first. These Summary Settlements on the whole worked fairly well. The assessments were easily paid. In two or three estates only did the owners refuse the assessment, and relinquish their proprietary rights. In the rest of the District the first Summary Settlement was made by Lieutenant John Nicholson, assistant to the Board of Regency. He increased on the Sikh assessments, and even in some

cases on those of Diwán Kishenkor, and others of the most exacting Sikh officials. His *jamás* were considered very oppressive. He had framed them entirely on the estimates and papers of bygone Sikh agents, whose collections are now known to have been far beyond the amount the agricultural community could bear in a term of years. Other circumstances concurred to render these leases oppressive. The people were deeply in debt; they had not recovered from the destructive visitation of the locusts; and far more serious than even these causes was one which made the load intolerable. An unparalleled fall of prices took place at the period of annexation, for which it is difficult to account. Although large cantonments were formed and the consumption of grain must have been greater than during Sikh rule, yet the amount of grain stored was probably immense, and a certain confidence may have taken possession of the trading classes, tending to make them disgorge their hoards. All these causes combined, plunged the agricultural body into great distress. Added to this was the absence of employment, caused by the disbandment and discharge of the Sikh myrmidons, and the want of ready money. It is not surprising that, under these circumstances, a deep spirit of discontent began to show itself among the population of these and other *ilákas*. For some time after the annexation successive members of the Board of Administration were mobbed, and the whole agricultural population began to agitate seriously for a reduction of assessment. But the signs of the times were not immediately understood. Many old Sikh officials had been retained in office, who represented that it was a clamour raised merely to test the powers of endurance of a new *régime*, and the stipulated period of lease was allowed to elapse before relief was afforded.

When, therefore, the next Summary Settlement was made by Mr. Carnac, Deputy Commissioner of the District, it was under an outer pressure, which, however disinclined he was at first to yield to clamour, could result in nothing else than large reductions. His revision of 1851 was again remodelled in 1853 on the basis of a measurement (though without a field map), and these assessments lasted until at various times, in different localities, they were superseded by those of the detailed settlement by Colonel Cracroft. In praise of these assessments it is enough to say that, in conjunction with other causes, they raised the District from a state of great depression to one of prosperity unknown before; and that though it was found necessary still further to reduce the revenue, in order to leave reasonable profits and give hope of its standing the test of fair pressure in unfavourable years and bad seasons, yet Colonel Cracroft's operations did not result, as far as the assessment goes, in much beyond its more equable and uniform adjustment on villages and population, and a reduction on the whole of $5\frac{1}{2}$ per cent.

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The Regular Settlements. The First Regular Settlement.

The First Regular Settlement of Tallagang was conducted by Mr. Arthur Brandreth. It commenced in June 1855 and was finally completed in May 1864. The assessment has been elaborately explained by the Settlement Officer in his published report. Generally speaking, it may be said that the demand was so framed as in no case to exceed half assets. The following table shows the value of the land revenue under Sikh rule and under the first three British settlements :—

Tahsil.	Sikh average.	Average of Summary Settlements. 1st	Average of Summary Settlements. 2nd.	Regular Settlement first year.
	Rs.	Rs.	Rs.	Rs.
Tallagang	99,698	90 665	87,150	99,468

The amount shown as the Sikh demand professes to be the average of what they took in the last four years of their rule. In fact the Sikh demand cannot be stated with any accuracy. The local officers of the Lahore Darbár, the *kárdárs*, took as much as they could get, and the demand was not framed so as to leave any profit to the proprietary body. The entries as to the Summary Settlement are average results deduced from the whole period of the currency of each. *Jágírs, ináms* and *muáfís* are always included.

In the rest of the District the first Regular Settlement was made by Colonel Cracroft. Settlement began in 1860 and was reported to Government in 1864. The assessments were sanctioned by Government on 31st October 1866. The subjoined table shows the highest demand ever realised in the various tahsils compared with the amount of the summary and regular assessments. Fatteh Jang had been constituted a separate tahsil in 1859.

Tahsil.	Highest demand, of which accurate record exists, ever paid in one year from 1840 onwards.	Summary Settlement demand for year preceding the declaration of the demand of the Regular settlement.	Demand assessed at Regular Settlement.	Increase.	Decrease.	Rate of regular assessment per head of population.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs a. p.
Attock	1,65,367	1,31,176	1,29,200	608	2,584	1 10 9
Fatteh Jang ...	1,34,824	1,19,532	1,11,203	1,235	10,094	1 8 0
Pindigheb ...	1,06,674	71,578	77,301	5,723	...	1 4 8

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Everywhere, the first Regular Settlement was essentially in regard to the assessment a village settlement. Assessment circles were no doubt formed, but they were not much used. In the main the demands were fixed by the personal knowledge of the Settlement Officer, and by his opinion, of what each village could afford to pay. He arrived at his conclusions after consideration of a multitude of matters all more or less relevant to the subject of taxation. These assessments undoubtedly worked well. They were in nearly every case paid with ease and regularity, and led to a general increase in the prosperity of the District and in the amount of cultivation. They were, however, never tried by widespread crop-failure. There were occasionally indifferent harvests, but never anything approaching scarcity.

The Second Regular Settlement.

The Second Regular Settlement began in Tallagang in December 1874, under the direction of Major Wace, who held charge till May 1877. Various officers presided over the operations from that month till September 1878, when Mr. Thomson assumed the direction, and completed and reported on the settlement in the cold weather of 1880-81. The assessment of the land revenue was wholly performed by Major Wace himself, while the forest settlement was chiefly made by Mr. Thomson. Since the first Regular Settlement, cultivation and the permanent value of agricultural produce had increased, population had expanded, communications had improved, the former assessment had been easily paid, and the people generally were prosperous.

The standard of assessment was, as it is still, " half net assets," that is, the assessment was nowhere to exceed half the net profits which a landlord would realise if he cultivated his land through tenants. In fact, the assessment was everywhere much less than this.

The settlement took effect from Kharif 1879. Colonel Wace originally proposed an increase of only 28 per cent in Tallagang; but the Financial Commissioner considered the proposed assessment too low, and in the result the increase taken was 34 per cent. The assessment, even as enhanced by the Financial Commissioner, was still light, and Colonel Wace himself wrote that the demand was " admittedly below what it would have been had not cultivation increased more rapidly than can safely be immediately followed by our cash assessments."

As might, therefore, be expected the Revised Settlement worked well throughout the tract, the demand being in ordinary years paid easily and without pressure : but it was of course lightened considerably during the term of settlement by the large extension of cultivation that everywhere took place. The whole country, being at the mercy of the rainfall, is soon affected by drought, and in

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unfavourable seasons collections are made with some difficulty, as is only natural; but even in such bad years as those from 1896 to 1900, the suspensions which it was necessary to grant were comparatively small, as shown by the following table :—

	Tallagang. Kharif.	Tallagang. Rabi.	Year in which the amount suspended was realised.
Demand, 1897-98	51,407	60,311	...
Suspensions.			
1887-88	3,254	...	1888-89
1888-89	3,421	...	1889-90
1895-96	..	...	1896-97
1896-97	4,809	2,021	–
Remissions.			
1890-91	...	54,562	...

Before 1887, it does not seem to have been customary to grant suspensions, at any rate none were granted, and it is hardly possible that none were needed. Since 1887 there has been only one year in which neither suspensions nor remissions were required. This must be regarded as a normal state of affairs.

The remissions in the disastrous year 1890-91 were due to damage done by locusts, which made practically a clean sweep of the spring crop in the whole of Tallagang. All the suspensions have been rendered necessary by drought, chiefly in certain well defined blocks of country, which have a way of being left out in the distribution of any but the most universal rainfall. The revenue suspended in 1887-88 was all recovered within the next year. Coercive processes have very rarely been employed. There are probably few tahsils where collections give so little trouble as in Tallagang.

The figures given above do not contradict the statement that the settlement worked well in Tallagang. In a dry tract dependent on a precarious rainfall, even a very moderate fixed assessment would not obivate the necessity of giving rather frequent suspensions. If *remissions* are avoided, otherwise than for unforeseen calamities such as hail and locust or exceptionally prolonged droughts, and the bulk of the revenue is paid with punctuality, a settlement may be said to have worked satisfactorily.

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For the rest of the District, that is all north of the Soán, the assessments of the First Regular Settlement had been sanctioned for 10 years from 1864, but were allowed to run on for 20 years. The Second Regular Settlement began in October 1880, with Mr. Steedman in charge as Settlement Officer.

Measurements were completed under his supervision, but his health broke down, and after 3½ years he was compelled to take leave. Mr. Robertson, previously Forest Settlement Officer, then completed the settlement. Mr. Steedman had completed the assessment of Attock Tahsil and reported on it in August 1884. In the Fatteh Jang Tahsil the assessment work was done, and the assessment report was written by Captain (afterwards Colonel) F. Egerton. The increase in the area of cultivation since Colonel Cracroft's assessments were announced was the chief foundation on which the enhancements were based. The standard of assessment was "half net assets." The methods were those at present followed. Assessment circles were formed, a produce estimate worked out, and soil rates framed. The results, compared with those of Colonel Cracroft, may be thus summarised :—

Tahsils.	Area cultivated at First Regular Settlement.	Area cultivated at Revised Settlement.	Increase per cent on cultivated area.	Jama at First Regular Settlement.	Incidence of revenue per acre cultivated.	Jama at Second Regular Settlement.	Incidence of revenue per acre cultivated.	Increase per cent in jama.
	Acres.	Acres.		Rs.	Rs. a. p.	Rs.	Rs. a. p.	
Attock ...	142,655	183,964	29	1,295	0 14 6	1,59,595	0 13 11	24
Pindigheb ...	162,435	264,513	63	77,379	0 7 7	1,14,593	0 6 11	48
Fatteh Jang ...	139,886	231,691	64	1,11,279	0 12 9	1,56,738	0 10 9	41

Working of the Settlement.

In Attock the Settlement worked very well. The Chhachh and the Sarwála flourished, but the Nala did not thrive so well.

The state of Pindigheb Tahsil began to cause anxiety from the very beginning of the term of Settlement.

The Lieutenant-Governor, Sir J. B. Lyall, as the result of a tour in the Pindigheb Tahsil in 1891, called for a report on the working of the Settlement with a view to the introduction of a fluctuating assessment. The Commissioner, Mr. Thorburn, in the course of his report in June 1891 wrote as follows :—

"The former fixed assessment of the tahsil as it stood in 1884-85 was Rs. 77,379. The new fixed assessment in force since Kharif 1885 is Rs. 1,14,593,

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being an increase of Rs. 37,214 or 48 per cent. Since then Rs. 82,000 have been suspended, chiefly in the years 1886-87, Rabi 1888 and 1889-90. Of the suspended revenue Rs. 2,500 have been remitted, and Rs. 13,500 are still unrecovered and probably unrecoverable. The rest, Rs. 66,000, has been realised whenever there was a fair or good harvest. In addition to the above suspensions and remissions, Rs. 45,500 of the rabi demand for 1890-91 are now being suspended, preliminary to recommendations to remission, owing to the destruction of the spring crops by locusts. About half the rural population has left the tahsil in search of labour, a quarter or more of the plough cattle have been sold, and indebtedness is general. It is evident that even in the unlikely event of several successive good or fair harvests the condition of the revenue-payers of the tract, money-lending holders excepted, must long continue depressed. The fact is that whenever the Rabi fails, as it does over a larger or smaller area quite every second year, the poorer agriculturists and their dependents forsake their homes and seek labour beyond the limits of the tahsil. The same happens, but to a much smaller extent, when the Kharif fails."

As the result of this enquiry the Lieutenant-Governor in his letter No. 163, dated 25th September, offered the Pindigheb Tahsil a fluctuating assessment, the proposed rates on matured crop being—

		Rs.	a.	p.
Sil and Jandal Circles.				
Irrigated ...	... ...	2	0	0
Unirrigated	Wheat and cotton	1	0	0
	Others	0	12	0
Makhad Circle				
Irrigated ...	... ...	2	0	0
Unirrigated	Wheat and cotton	0	12	0
	Others	0	8	0

The proposed fluctuating assessment was explained to the people, with the result that not a single village consented to abandon their fixed assessments for the proposed fluctuating assessment. They objected partly to the rates which they considered too high, but mainly to the constant interference of Government subordinates, which any system of fluctuating assessment involves. They said that they did not want the Settlement always with them. The Financial Commissioner opposed the proposal to introduce pure fluctuation and extracts from his letter are printed in paragraph 479 of the Settlement Manual. Ultimately the proposal to introduce fluctuating assessment was abandoned and the fixed assessment was sanctioned and allowed to run its course. The harvests of the next few years were good, and the first decade of the term of Settlement in Pindigheb ended more hopefully than it had begun. During the same period in Fatteh Jang no suspensions were given, but Rs. 8,808 were remitted during the locust year 1890-91. Detail of the suspensions

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and remissions given in the last ten years of the now expired Settlement are shown in the following table :—

YEAR.	Nala.	Gheb.	Sil Soan.	Tahsil Fatteh Jang.	Jandal.	Makhad	Sil.	Tahsil Pindigheb.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1895-96 ...	...	...	...	...	200	...	6,639	6,839
1896-97 ...	10,563	12,157	100	22,820	943	3,273	14,308	18,524
1897-98 ...	...	...	...	...	25	237	1,313	1,575
1898-99 ...	...	...	...	...	...	380	4,096	4,476
1899-1900 ...	888	3,586	31,667	36,141	...	980	21,369	22,349
1900-01 ...	...	...	...	...	...	...	1,102	1,102
1901-02 ...	310	3,668	13,522	17,500	...	564	14,136	14,700
1902-03 ...	...	319	...	319	...	...	...	...
1903-04 ...	2,224	5,818	4,087	12,129	177	127	4,110	4,414
1904-05 ...	1,727	2,325	1,677	5,729	116	...	1,806	1,922
Total ...	15,712	27,873	51,053	94,638	1,461	5,561	68,879	75,901
Percentage of total suspensions to total revenue demand of 10 years.	8	6	5	6	1	7	8	7
Total remissions 1895-96—1904-05.	2,379	8,121	20,349	30,849	...	770	23,418	24,188
Percentage of total remissions to total land revenue demand of 10 years.	1	2	2	2	...	1	3	2

It will be noticed that in this period of ten years the whole revenue was collected in only four years in Fatteh Jang and in only one year in Pindigheb. In Fatteh Jang, one per cent and in Pindigheb two per cent of the total demand has been remitted. At the end of the year 1904-05, Rs. 6,289 were outstanding under suspension in Fatteh Jang and Rs. 751 in Pindigheb. In noting on the working of the settlement, Mr. Kitchin wrote as follows :—

"The total assessment is not high, and is even light, but the distribution over villages and over holdings is not good. The measurements, which are the foundation of assessment, were sometimes very bad, and it would appear that the local staff of last Settlement was much less competent and much more corrupt than in any other tahsil. The recorded increase of cultivation, 53 per cent., was greatly exaggerated. Huge fields, cultivated in patches, full of ravines and rocks, were shown as all cultivated. In some cases villages in which the cultivation has actually increased since Settlement, now show a cultivated area 30 per cent. to 50 per cent. less than that at last Settlement. With statistics so unreliable, mistakes were bound to occur and they did occur. At the same time the records were not so bad but that it has been found possible to correct the maps in the present Settlement and re-measurement had hardly ever been necessary. The difficulty

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which has been found in working the Settlement in Pindigheb is, however, in the main, due to bad seasons, but in considering assessment proposals in this tahsil it must not be forgotten that bad seasons are more common than good seasons, and that the losses suffered in one bad year, the losses of stock and the debts incurred, are not recouped in a single good year, and perhaps can never be recouped at all."

The Current Settlement.

Dates

When the first and second of the revised Settlements expired the district had not yet been formed. Tallagang was still a part of Jhelum district, the remaining tahsils being in Rawalpindi district. It was found convenient to re-settle Attock tahsil in connection with the Hazara Settlement. The result is that the current Settlement was carried out at three different times and under three different officers. Mr. W. S. Talbot settled Tallagang, being appointed Settlement Officer towards the end of 1895, and retaining charge till the completion of operations at the end of 1901. To some extent the length of the proceedings was due to interference with the work on account of bad harvests. In 1901 and 1902 Mr. M. S. D. Butler, Assistant Settlement Officer, Hazara, settled Attock tahsil. In Fatteh Jang and Pindigheb Settlement operations were in charge of Mr. A. J. W. Kitchin, who also settled Rawalpindi district, operations lasting from 1902 to 1907. Detailed accounts of the principles and procedure followed by these officers will be found in the published Assessment Reports.

Assessment Circles.

The assessment circles framed have already been described. The whole of Tallagang is one circle. Each of the other tahsils is split up into three circles. The Attock circles are the Chhachh, Sarwála and Nala circles; those of Fatheh Jang are the Nala, Gheb and Sil Soán; those of Pindigheb Jandal, Makhad and Sil.

Methods.

The methods of Mr. Talbot and Mr. Kitchin were those laid down in the instructions. The estimated value of half the net produce was taken as the maximum for the Government demand. A principal guide was the rents paid in money and kind by an ordinary tenant-at-will, care was taken not to tax unfairly the capital invested in improvements, and full allowance was made for all circumstances directly or indirectly bearing on the profits of the land owners. Half net assets estimates, produce estimates and soil rates were all worked out, and the Government demand calculated in the usual way.

In Attock, Mr. Butler framed with great care a half assets estimate based on kind rents, and then rejected it as an assessment guide. A half cash rent estimate was not framed. The assessment guide relied on was obtained by raising the existing revenue rates 17 per cent for the rise in prices, and applying the new rates

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thus obtained to the present cultivated area. The question is one relating to Settlement procedure, and, as it is not of general interest, it need not be mentioned here at greater length. Reference should be made to Mr. Butler's Assessment Report, especially to sections 47 and 48, and to the Settlement Commissioner's review of Mr. Butler's proposals, especially section 25.

Results of Reassessment.

The results of the reassessment are given below :—

Tahsil.	Assessment circle.	Demand of last year of former Settlement.	Demand of first year of new Settlement.	Half assets estimate.	Actual increase in rupees.	Increase per cent.
Attock ...	Chhachh ...	76,138	90,656	1,00,595	14,518	19
	Sarwála ..	22,293	27,719	29,952	5,426	24
	Nala ...	60,856	69,135	69,175	8,279	14
	Tahsil ...	1,59,287	1,87,510	1,99,722	28,223	18
Fatteh Jang ...	Nala ...	18,500	22,248	33,069	3,748	20
	Gheb ...	43,845	56,344	92,495	12,499	29
	Sil Soan ...	94,259	1,06,363	1,54,727	12,104	13
	Tahsil ...	1,56,604	1,84,955	2,80,291	28,351	18
Pindigheb ...	Jandál ...	25,877	29,366	43,943	3,489	14
	Makhad ..	8,195	8,763	9,228	568	7
	Sil ...	80,726	81,194	1,14,885	468	1
	Tahsil ...	1,14,798	1,19,323	1,68,056	4,525	4
Tallagang ...	...	1,21,375	1,59,848	2,17,334	38,473	32
District ...	..	5,52,064	6,51,636	8,65,403	99,572	18

Rates.

The sanctioned rates of assessment per acre are as follows:—

Tahsil.	Assessment Circle.	IRRIGATED. Chahi	IRRIGATED. Abi.	IRRIGATED. Nahri.	Sailáb.	Lipara or Hail.	Las or Báráni I.	Maira.	Rakar.	Banjar.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Attock ..	Chhachh ...	6 8 0	...	...	1 8 0	1 8 0	2 0 0	0 12 6	0 4 0	...
	Sarwála ...	4 8 0	4 0 0	...	1 8 0	1 8 0	1 0 0	0 6 6	0 3 0	...
	Nala ...	5 0 0	5 0 0	1 10 0	1 10 0	0 10 0	0 10 0	0 8 6	0 4 0	...
Fatteh Jang...	Nala ...	5 0 0	5 0 0	...	1 0 0	1 0 0	0 10 0	0 10 0	0 10 0	...
	Gheb ...	3 8 0	3 8 0	...	0 7 0	0 12 0	0 7 0	0 7 0	0 4 0	...
	Sil Soán ..	5 8 0	5 8 0	...	1 8 0	1 14 0	0 15 0	0 15 0	0 6 0	...
Pindigheb ...	Jandál ...	3 8 0	3 8 0	...	0 8 0	0 12 0	0 12 0	0 8 0	0 8 0	...
	Makhad ...	3 0 0	3 0 0	...	0 4 0	0 8 0	0 8 0	0 4 0	0 4 0	...
	Sil	4 0 0	4 0 0	...	0 6 0	0 12 0	0 12 0	0 6 0	0 6 0	...
Tallagang ...	...	Irrigated. 4 4 0	...	...	...	0 14 0	0 14 0	0 7 3	0 7 3	0 0 3

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The average rate per acre for the whole District is ten annas one pie. In Tallagang the justification for the increase of 32 per cent was an increase in cultivated area of 23 per cent and a rise in prices of from 30 to 36 per cent. In Pindigheb efforts were made to redistribute the existing demand rather than to increase the demand on villages which had already shown that the existing assessment was as much as, or more than, they could bear. In the Chhachh and Sarwála the reasons for taking an increased demand were the great spread of well cultivation. The Attock Nala had been relatively over-assessed and a full assessment was not taken.

Incidence of demand.

The rate of incidence of the present demand per acre cultivated is compared below with the rate of incidence at Revised Settlement :—

Rate of incidence per acre cultivated.

	Chhachh.	Sarwála.	Nala.	Tahsil Attock.	Nala.	Gheb.	Sil Soán.	Tahsil Fatteh Jang.	Jandál.	Makhad.	Soán.	Tahsil Pindigheb.	Tallagang.
	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.	R.a.p.
Revised Settlement ...	1-7-8	0-7-2	0-12-2	0-14-1	0-12-0	0-6-0	1-1-4	0-10-8	0-7-9	0-4-4	0-7-0	0-6-10	0-12-9
Current Settlement ...	1-9-7	0-8-7	0-13-6	1-0-7	0-11-10	0-7-2	1-2-4	0-12-1	0-8-3	0-4-3	0-7-2	0-7-0	0-8-6

In Tallagang the former settlement terminated at the end of 1898-99, but owing to the season of distress through which at that time the tahsil was passing, the announcement of the new assessment was deferred under the orders of Government and they did not take effect until Kharif 1901, when there had been two good harvests. Unfortunately the year 1901-02 proved to be a bad one agriculturally, and considerable suspension had to be granted, so the new settlement did not start under favourable circumstances.

In Attock Mr. Butler proposed that the enhancements should be progressive being gradually introduced within a period of five years, and the Settlement Commissioner suggested that " in any village where the enhancement of revenue would exceed 30 per cent, the Settlement Officer should defer half of it or a sum within 25 per cent of that amount for a period of five years, the method followed being to announce and distribute the full final demand and then defer so many annas in the rupee on each holding." The Lieutenant-Governor, however, thought it unnecessary to allow any progressive assessments except under protective leases for wells. The new assessments were accordingly introduced from Kharif 1901. Mr. Kitchen's assessments in Fatteh Jang and Pindigheb took effect from Kharif 1906.

Cesses.

The cesses payable in addition to the land revenue are—

	Rs.	a.	p.		
Lambardari Cess	5	0	0	per cent on the land revenue demand.	
Local Rate ...	4	2	0	ditto	ditto

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Assignments of Revenue.

Of the total demand by the new assessment Rs. 43,754 or 7 per cent is assigned as follows :—

		Rs.
Muáfis and *jágírs*	... ...	35,160
Ináms	... ...	8,594

In Tallagang Tahsil none of the large grantees are *zamíndárs* in the ordinarily accepted meaning of the word : the largest of all are absentees. The principal grantees are Sardar Mehr Singh, Chhachhi, etc., of Pachnand, Rs. 6,629, and Pir Ilâchi Náth of Kot Sárang, Rs. 715. In Fatteh Jang the grants of the Sardar of Kot aggregate Rs. 6,184; the Khattar family of Dhrek and Bahtar receive Rs. 908; the Ghebas of Malál receive Rs. 500; and the Alpial family of Chakri receive Rs. 800. The Malliks of Pindigheb hold one village in *jágír*, and in 26 villages receive as *chahâram* one-fourth of the whole assessment. The *chahâram* is made up of a *talakadári* of 10 per cent or 15 per cent paid by the owners, and a *jágír* of 15 per cent or of 10 per cent, bringing the total grant up to 25 per cent in each case. The whole *jágír* paid by Government is Rs. 3,841, and the village owners in the form of *talakadári* pay Rs. 2,581. The only other large grantee in Pindigheb is the Khán of Makhad, who, under the name of *chahâram*, receives one-fourth of the revenue of all the Pathán villages in the circle. This amounts to Rs. 1,829. In addition to the grants in this District, the Khán of Makhad has large *jágírs* and feudal dues in the Kohát District. In Attock Tahsil Malik Muhamad Amin Khán, of Shamsabad, receives Rs. 2,200, Mahant Hans Das, Jassian, Rs. 1,540 and the Mallahs of Attock Rs. 1,095.

The following statement gives the assignments of revenue for each tahsil :—

Tahsil.	In perpetuity.		Maintenance of institutions.		For life or lives.		For term of settlement.		For road-side groves and gardens.		Total value of grants.
	No.	Value.	No.	Value.	No.	Value.	No.	value.	No.	Value.	
		Rs.		Rs.		Rs.		Rs.		Rs.	Rs.
Fatteh Jang ...	19	10,681	3	358	12	1,288	1	1	...	...	12,328
Pindigheb	37	5,678	6	148	10	581	2	103	1	8	6,518
Attock	14	5,536	...	...	18	2,337	6	514	1	20	8,407
Tallagang	8	7,535	3	30	3	185	...	...	...	...	7,750
Total ...	78	29,430	12	536	43	4,91	9	618	2	28	35,003

CHAP. III. C.
Land Revenue.
Instalment.

The proportion of the demand to be paid in each of the two harvests is a matter which the people are usually allowed to settle for themselves. The rabi harvest is almost everywhere much more valuable than the kharíf, while in the Jandál and the Sarwála the kharíf harvest is of hardly any importance at all. The result of putting a large share of the demand upon the kharíf undoubtedly adds to the difficulty of collection, and results in the unnecessary trouble of suspending revenue in the kharíf to collect it in the following rabi. On the other hand, prosperous owners like to pay a large share of their revenue with the kharíf, as it enables them to dispose of their rabi crops at their leisure, and frees them from the necessity of selling grain just when the market is most unfavourable. In Tallagang the people were generally advised to pay two-thirds of the demand in the rabi and only one-third in the kharíf. Many villages adopted this suggestion. Many, however, elected to pay equally in both harvests, and some preferred to pay three-fifths in the rabi instead of two-thirds. In the Pindigheb Jandál the instalments are kharíf one-third, rabi two-thirds. In the rest of Pindigheb and in Fatteh Jang the case of each village was decided in the *bachh*, and where suspensions of the kharíf revenue had been frequent in the past the proportion of the rabi instalment was increased, unless the people showed any strong and reasonable objection. The general rule is to pay two-thirds of the annual demand in the rabi. In Attock Tahsil the assessment is paid in two equal instalments.

For the whole District the amount payable in the kharíf is Rs. 2,87,228 and in the rabi Rs. 3,15,298 *plus* cesses, kharíf Rs. 38,297, rabi Rs. 42,040.

The dates for payment are in Tallagang kharíf 1st January and 1st February and rabi 1st July and 1st August and in the rest of the District 15th January and 15th July.

Water-mills.

In all three tahsils north of the Soán no assessment has been imposed upon water-mills, but power has been reserved to make a special assessment at any time. In Mr. Talbot's settlement mills were assessed at an average rate of Rs. 7-8-0.

Suspensions and Remissions.

Much of the District is insecure. The general rule therefore is that suspensions are granted freely but remissions are to be given seldom, and recoveries are made on the first opportunity. The three years' rule, that is, that suspended revenue outstanding for three years should be remitted, is not followed. Generally the kharíf is the cattle crop, and the rabi is the people's crop. Suspensions are not required for a poor kharíf following a fair rabi, if there is moisture for rabi sowings. Danger rates have been framed and the District divided into secure and insecure tracts. Eighty-eight per cent of the District is "insecure".

Section D.—Miscellaneous Revenue.

CHAP. III. D.

Miscellaneous Revenue.

Excise.

One of the main heads of Miscellaneous Revenue is Excise, though the District is relatively one of the least important in the province in this respect. The population is almost entirely Muhammadan and is not addicted to drinking. The consumption of spirits and other liquor is confined almost entirely to the few small towns and large villages. The number of retail vendors is 18, and that of wholesale vendors 2, one doing business at Campbellpur, the other at Tallagang. The number of shops selling foreign liquor or liquor imported from Europe is three, one on a fixed fee at Campbellpur, the others at Attock and Tallagang. The gross receipts for the last four years are given in the margin. The increase is mainly due to enlarged sales of country liquor.

Year.	Receipts.
	Rs.
1903-04 ...	8,917
1904-05 ...	10,190
1905-06 ...	10,147
1906-07 ...	14,146

There is now no distillery in the District. The chief sources of supply are the Murree Brewery Company, Rawalpindi, the Karnal and Shahjahanpur distilleries, and wholesale vendors in Lahore, Rawalpindi and Peshawar. The total number of gallons of spirit made in British India and sold to licensed vendors during 1903-04, 1904-05, 1905-06, 1906-07 was 2,615, 2,622, 3,224, 3,667 respectively.

Smuggling is almost unknown and illicit distillation very rare.

Muhammadans who refrain from spirits are not above indulging in a little opium, but the consumption is small. The cultivation of the poppy is prohibited in the District, and the opium administration is concerned only with the import trade. Retail dealers obtain their supplies from Rawalpindi. There are 18 shops licensed to sell opium.

The only hemp drugs used are *bhang* and *charas*. The former grows in several parts of the District, but the drug is not manufactured and there is no export. Both *charas* and *bhang* are imported from Rawalpindi and Amritsar. The import of *charas* for the last three years is given in the margin. There are no bonded warehouses in the District. The total annual consumption of opium and hemp drugs in seers during the last four years is given below:—

Year.	Amount.		
	M.	s.	ch.
1904-05 ...	8	39	6
1905-06 ...	7	0	0
1906-07 ...	9	33	8

Year.	Opium.	Bhang.	Charas.
1903-04	616	103	512
1904-05	495	71	361
1905-06	473	118	300
1906-07	605	275	394

CHAP. III. D.

Miscellaneous Revenue.

The incidence of the gross receipts from exciseable articles on each 10,000 of the population in rupees was as follows:—

Year.	Liquor.	Opium.	Drugs.
1903-04	192	79	44
1904-05	219	94	53
1905-06	219	73	35
1906-07	307	69	29

The consumption per head of population during the same years was:—

Year.	Liquor.	Opium.	Charas.	Bhang.
	Oz.	Tolas.	Tolas.	Tolas.
1903-04	0·9	·1	·09	·02
1904-05	0·9	·09	·06	·01
1905-06	1·0	·08	·05	·02
1996-07	1·1	·1	·07	·05

Income Tax.

The trade of the District being inconsiderable the Income Tax collections are in comparison with other districts small. The large majority of assessees are small bankers and money-lenders in the villages and small towns. There are at present 318 assessees of whom only 57 have incomes of over Rs. 2,000 per annum. The following table shows some of the more important figures in connection with Income Tax administration:—

Year.	Number of Assessees.		Net collections.
	Incomes above Rs. 2,000.	Incomes below Rs. 2,000.	Rs.
1903-04	18	159	5,723
1904-05	77	261	17,021
1905-06	70	247	10,610
1906-07	57	318	11,482

Incomes are assessed only under Parts I and IV of the Act, as the District figures include no contributions from companies or securities. The work of the Department is easily carried on by a single *moharrir* under the control of the Deputy Commissioner.

Stamps.

The records for the receipts and charges on stamps for the last four years are given below:—

Year	Number of licensed vendors.	Gross receipts.	Charges.	Net receipts.
		Rs.	Rs.	Rs.
1903-04	Not	available		33,318
1904-05	85	35,495	2,177	40,257
1905-06	59	42,536	2,279	58,366
1906-07	60	61,338	2,972	

CHAP. III, E.

Local and Municipal Government.

The increase is almost wholly under the head of Judicial Stamps. The Land Alienation Act, the Limitation of Suits Act, and the Pre-emption Act have had their effect in a considerable diminution of litigation and of the number of bonds executed. The increase simply means that people who formerly bought stamps in Rawalpindi now buy within the District. The greatest rise synchronises with the removal of the courts to Campbellpur.

Local Rate.

The local rate is Rs. 4-2-8. The total receipts are about Rs. 65,000.

Section E.—Local and Municipal Government.

Municipalities.

There are now only two Municipalities in the District, those of Hazro and Pindigheb. The Municipality of Tallagang was abolished many years ago. Attock is a notified area.

Hazro.

The only Municipality of any importance is that of Hazro in Attock Tahsil. It is a Municipality of the second class. There are twelve members, of whom nine are nominated and three are *ex officio* members. The Deputy Commissioner of the District is the President. There are two Vice-Presidents. Of the remaining members at present five are Hindus and four are Muhammadans. The right of electing members was withdrawn by the Punjab Government in 1900 on account of misappropriations of Municipal funds and intrigues and feuds among the members. The Municipal boundaries were fixed by Punjab Government Notification No. 100, dated 10th February 1886, but proposals are now under consideration for their amendment.

The Committee works largely through Sub-Committees, seven in number, *viz.*, Sanitation, Public Works, Finance, Lighting, Licensing, Garden and Education. Of these the first three are permanent Sub-Committees, the last four temporary. A paid Secretary was entertained, and the new Municipal Account Code was introduced last year (1906).

The principal source of income is octroi, which is collected mainly on the import of grain and cloth. The refund system has recently been introduced, and the Committee now has a bonded warehouse. The income for the last three years is given in the following table:—

Detail.	1904-05.	1905-06.	1906-07.
	Rs.	Rs.	Rs.
Octroi	12,941	15,480	16,588
Education	1,807	1,948	2,092
Sweepings	1,032	1,262	1,201
Interest	1,985	1,985	1,985
Miscellaneous	366	617	6,755
Total ...	18,131	20,292	28,621

CHAP. III. E.

Local and Municipal Government.

The detail of expenditure is as follows:—

Detail.	1904-05.	1905-06.	1906-07.
	Rs.	Rs.	Rs.
Octroi collection establishment	1,429	1,626	2,840
Municipal office	815	953	1,379
Public Works	944	11,906	2,440
Police	2,519	2,520	2,522
Education	3,354	3,447	3,767
Medical	2,792	2,288	2,138
Conservancy	1,972	2,099	2,302
Lighting	884	649	813
Garden	298	503	438
Miscellaneous	102	315	1,748
Total ...	15,109	26,306	20,387

Refunds in 1906-07 amounted to Rs. 1,303.

The three local schools, the Middle School, the Hindu Girls' School, and the Aided School are supported by the Committee. The local police are also maintained by the Municipality at a monthly cost of Rs. 209-14-9. A fire engine has been purchased and put in charge of the police.

Two drainage schemes, one intra-mural, the other extra-mural, are under consideration. For the former a payment of Rs. 10,000 has been made to the Public Works Department, but the scheme has not yet been taken in hand.

The medical expenditure is incurred on the Municipal dispensary. The Municipality's finances are in a sound condition. Rs. 20,200 have been invested in Government promissory notes at 3½ per cent under the Loans Act of 1865.

The octroi schedule was revised by Government in 1892 (Notification 328, dated 7th July 1892). Proposals for its further revision have been submitted to Government.

The Municipal bye-laws were published with Punjab Government Notification No. 683 of 22nd August 1890, and were revised by Notification No. 56, dated 1st February 1900.

The population of the Municipality is 9,799. Octroi falls at the rate of Re. 1-8-11 on each head of the population, and the total income at Rs. 2-12-7.

Pindigheb.

The Pindigheb Municipality is of the second class, and was established by Punjab Notification No. 1773, dated 23rd October 1874. There are 12 members, four of whom are members *ex officio*. The Deputy Commissioner is President, the Assistant Commissioner, Pindigheb, senior Vice-President, the Tahsíldár, junior Vice-President, and the Civil Surgeon a member. There is no system of election. The non-official members are nominated by the Deputy Commissioner. At present four are Hindus and four Muhammadans. The Assistant Commissioner supervises all

CHAP. III. E.

Local and Municipal Government.

Municipal business, appeals from his orders being heard by the Deputy Commissioner. There are no Sub-Committees.

The boundaries of the Municipality were fixed by Punjab Government Notification No. 1967, dated 4th December 1874, and were revised by Notification No. 16, dated 13th January 1887.

The average annual income during the ten years preceding 1904 was Rs. 4,517 and the expenditure Rs. 3,759. The income and expenditure for the three years ending 1906-07 were as follows :—

Income.

Detail.	1904-05.	1905-06.	1906-07.
	Rs.	Rs.	Rs.
Octroi	5,327	5,682	6,811
Municipal property	8	22	193
Grants	...	...	...
Miscellaneous	773	693	747
Total ...	6,108	6,397	7,751

Expenditure.

Detail.	1904-05.	1905-06.	1906-07.
	Rs.	Rs.	Rs.
Administration	704	941	1,487
Public Safety and Convenience	2,818	2,876	2,841
Sanitation	1,137	1,283	1,282
Public Works and Repairs	238	50	348
Miscellaneous	382	154	63
Total ...	5,279	5,304	6,019

Practically the only source of income is octroi, which is levied on the trade in grain, cloth, gur, sugar, ghi, soap, cotton, oil and wood. There is no system of refunds. The octroi schedule was revised in 1904 (Punjab Government Notification No. 9498, para. 4, dated 2nd July 1904).

In the early years of the Municipality's existence the Municipal income was leased out on an annual contract, but the practice was discontinued in 1877.

Of the total income $18\frac{3}{4}$ per cent is set apart for sanitation. A Vernacular Middle School is another object of expenditure.

The framing of bye-laws is under consideration.

Attock Municipality was of the second class. It was discontinued from 31st March 1901, and is now a notified area. The

Attock

CHAP. III, E.

Local and Municipal Government.

income which used to amount to about Rs. 7,000 per year has now fallen to about Rs. 700 and annual expenditure is about Rs. 500.

District Board.

The District Board is constituted under Act XX of 1883, and performs for the District at large many of the functions for which the towns are indebted to their Municipal Committees. It consists of the principal executive officials and of the leading men of the countryside. There are 55 members of whom 46 are nominated and 9 are members *ex officio*. The Deputy Commissioner is *ex officio* President, but most of the practical work is done by the tahsíldárs in their respective tahsils.

The Board is now in the fourth year of its existence. Details of income and expenditure will be found in Statement 45 of the Statistical Volume. Almost the whole of the income is derived from the Local Rate, which is recovered from the zamíndárs in addition to the land revenue. By Punjab Government Notification No. 80, dated 9th March 1904, Rs. 5-3-4 per cent was fixed as the proportion which the Local Rate is to bear to annual land revenue demand. Four-fifths of this was to be credited to the District Fund, but by Punjab Government Notification No. 87, dated 2nd April 1906, Rs. 4-2-8 per cent of revenue has now been fixed as the share of the District Board. Other sources of income are cattle pound, school fees, garden receipts, cattle fairs, ferries, sale of trees, stage bungalows and *serais*, and *nazúl* properties. Cattle pounds are 15 in number. The income of 12 goes to the District Board, of two to the Provincial Funds, and of one to Cantonment Funds. There is only one District Board Ferry, that at Makhad. The income from it was during the years 1904-05, 1905-06, 1906-07 Rs. 172, Rs. 239, Rs. 169 respectively. The income of the District Boards amounts to a tax of four annas two pies on each head of the population.

At the present the chief item of expenditure is Public Works consequent on the formation of the District. Water-works and drainage schemes for Campbellpur are under consideration, and proposals have been submitted to Government. The permanent heads of expenditure are repairs of roads, buildings and bridges, cattle pounds, grants-in-aid for scholarship and other educational purposes, dispensaries, arboriculture and gardens, veterinary expenses, and other similar charges.

The list of the roads under the charge of the District Board will be found in the Public Works section.

The Board maintains horse and donkey stallions at tahsil head-quarters for breeding purposes and with excellent results.

Section F.—Public Works.

Public Works.

Railways.

Railways have already been mentioned. The construction of the Khushalgarh bridge is in charge of two Executive Engineers. The District was made a separate division in the Public Works Department, Roads and Buildings Branch in 1904, and was put in charge of an Assistant Engineer with an Overseer and two Work Munshis under him. Three unmetalled roads, namely, the Tarnaul-Kushalgarh road, the Jand-Makhad road and the Haji Shah-Pind Sultani road were made over for maintenance to the District Board in 1907. The Department has charge of no ferries or large *bands* in the District. Fifteen cattle-pounds have been constructed, but only two are maintained by the Department.

Roads.

Buildings.

The chief works carried out have been the District Court, the Tahsil, the Sessions House, the Deputy Commissioner's bungalow and the Civil Hospital, all at Campbellpur. The District Court cost Rs. 1,24,407 and about Rs. 1,59,342 have so far been spent on the District Jail.

Important historical buildings in the charge of the Department are few, only the Sagar Báoli, the Saidan Báoli and Lalla Rukh's tomb at Hasan Abdál call for notice. The annual cost of their maintenance is Rs. 215. Sanction has been applied for to the construction of a bridge over the Haro. The following schemes are under consideration: the Campbellpur Civil Bazaar Improvement Scheme, the Cambellpur High School Scheme, Cambellpur Drainage Scheme, and the Water-supply Scheme.

Telegraphs and Post Offices.

The Telegraph Lines are controlled by the Assistant Telegraph Superintendent at Rawalpindi, and the Post Offices by the Superintendent of Post Offices at Rawalpindi.

Section G.—Army.

The only military stations in the District are at Campbellpur and Attock.

Campbellpur.

The normal garrison at Campbellpur is one Battery, R.F.A., one Company H. B., R.G.A., one Ammunition Column, R.F.A., and one Camel Corps. The local affairs of the Cantonment are managed by a Cantonment Committee under the presidency of the Colonel commanding the station.

Attock.

The troops in Attock are a detachment of Garrison Artillery and a detachment of Native Infantry.

Recruiting.

The District is not a good one from the recruiting officer's point of view. The Sagri Pathans take military service eagerly, and their example is being followed by the Alpials. But the other tribes are not attracted by the army. The Awán is reluctant to leave home, and the Attock Pathans prefer civil pursuits.

CHAP. III. H.

Section H.—Police and Jails.

Police and Jails.

The Police Force.

The Police Force for the District is controlled by a Superintendent of Police at head-quarters, who is subordinate to the Deputy Inspector-General of the Western Range, whose head-quarters are at Rawalpindi. There are 11 police stations in the District. The Hazro thána has two Sub-Inspectors, two head constables and 12 constables, the Chhachh being the most criminal part of the District. The other thánas have each one Sub-Inspector, two head constables and ten constables. There are five first class outposts (Attock, Choi, Nará, Jand and Chakri), each with one head constable and six constables. The second class outposts are at Harun and Hath, each with one head constable and four constables. Four constables are attached to the road post at Lawrencepur. Hazro has a municipal post, with two head constables and 21 constables, whose pay is provided by the Municipality. The constables get a monthly allowance of one rupee in addition to their grade pay. At Campbellpur there is a Cantonment police post, with one head constable and four constables. At present Gondal is saddled with a police post consisting of three head constables and 12 constables. The post includes 14 villages and the establishment is distributed at three different places—Gondal, Kamra and Mansur. The police establishment does not include trackers, but does include six constables mounted on camels.

The District is divided into two police circles, Pindigheb and Campbellpur, the former being in charge of an Inspector of Police.

The detail of the police establishment is given below:—

Number of Constables	... ...	436
,, ,, Head Constables	... ...	76
,, ,, Sub-Inspectors...	... ...	15
,, ,, Inspectors ...	... ...	3
,, ,, Superintendent of Police ...	...	1

With one exception the cattle-pounds are in the charge of the police, and ten of the pounds are at thánas.

Recruitment is made from the agricultural tribes by the Superintendent of Police, who is influenced in his selection chiefly by considerations of caste and physique. In regard to the latter a minimum standard of 5 feet 7 inches for height, and 33 inches for chest measurement has been adopted. The recruits on being enrolled undergo a course of drill and training for three months in the police lines. In addition one constable from each thána each month attends at head-quarters for instruction in drill and law.

Out of the total strength 211 men including sub-inspectors, head constables and constables are employed on rural duties. Two head constables and 25 constables are sanctioned as an armed reserve. There is no Military Police in the District.

Crime and its detection.

There are no criminal tribes in the District. Violent crime is very rife and successful investigation is a matter of difficulty.

CHAP. III, H.

Police and Jail.

Owing to the physical contour of the District it is difficult for the superior Police officials to move about freely, and the keen party feeling prevalent in every part of the District is another obstacle in the way of tracing crime. Where an offender is the protegé or tenant of a big landowner detection is almost impossible. Ordinary cases are investigated on the spot, the more serious cases being given to the Inspectors. Sub-Inspectors patrol their respective thánas to prevent crime and watch bad characters.

The finger-print system is in use. Most of this work is undertaken by a head constable and a constable at head-quarters and one head constable in Pindigheb. Three sets of impressions are taken in each case. One of these is registered in the office of the Superintendent of Police, another is deposited in the Central Bureau at Phillour, and the third in the District Jail.

The number and class of cases dealt with by the Police appear from the following list of cognisable crimes dealt with by them during the calendar year 1906:—

Crime.	Cases reported.	Cases admitted.
Murders	23	18
Dacoities	3	3
Burglaries	194	154
Riots	19	13
Mischief	24	13
Grievous hurt	78	47
Rape	3	2
Unnatural crime	7	4
Theft of cattle	7	6
Counterfeit coin	3	2
Cattle poisoning	15	8
Crimes under local and special laws ...	101	88

The District Jail is of the third class, and has at present accommodation for 209 prisoners. Its enlargement is under consideration. Prisoners sentenced for a term not exceeding one year are confined in it, others being sent to Rawalpindi or Lahore. Jail.

The Civil Surgeon is the Jail Superintendent. The staff is one Jailor, two Assistant Jailors, 26 Warders, one Hospital Assistant, one gardener and one matron.

The jail was opened on 1st January 1907. At present the prisoners are employed in grinding corn and in levelling of the Jail grounds for gardening or other cultivation. As yet no handicrafts have been introduced, and there are in consequence no jail profits.

The average monthly cost of maintaining each prisoner since the jail opened is Re. 1-14-7.

CHAP. III I.

Section I.—Education and Literacy.

Education and Literacy.

Literacy.

Attock District is the most illiterate District in the Rawalpindi Division. Less than 4 per cent of the population is literate. In respect of female education the District is the most backward in the Province. Only four women in every thousand can read or write. Literacy is highest among Hindus and Sikhs, among the non-Christian population. Among Muhammadans only 2 per cent of the males have any education, while only one woman in every thousand is literate. The ordinary zamíndár has no interest in education, and so far has had few opportunities.

pts.

The scripts employed are Urdu, Gurmukhi and among the money-lenders Landa Mahájani.

Indigenous methods of Education.

There are no *maktabs* of the old type in the District. They have been crushed out by the Board schools or by indigenous schools started after their model. Indigenous education is carried on in 287 private schools, of which 220 are for boys and 67 for girls. The number of scholars at present is 4,730—boys 3,647, girls 1,083. In most of these schools the only instruction consists in teaching the scholars to recite the Korán without any attempt to explain its meaning. In others the rudiments of reading and writing are taught. A little letter-writing is sometimes attempted. The Korán-teaching schools do little beyond developing the memory. Tallagang Tahsil has a certain reputation for the number of its "Háfizes" or people who have committed the Korán or portions of it to memory. Many of these people can scarcely be called literate. These private institutions are not open to inspection.

The Government System.

The Government system of education comprises Middle and Primary Schools. All are under the general control of the Inspector of Schools, Rawalpindi Circle, to whom, as well as to the Deputy Commissioner, the District Inspector of Schools is subordinate. There are no High Schools.

Middle Schools number seven, and are situated at Campbellpur, Hazro, Fatteh Jang, Akhwál, Pindigheb and Tallagang.

The detail of Primary Schools is as under :—

District Board Primary Schools for boys	45
" " " girls ... ... (5 Gurmukhi and 9 Urdu)	14
" " Zamindari Schools... ...	5
Aided Indigenous Schools	30
" " Municipal Schools	2

The last are at Hazro and Pindigheb. In 4 only of the 30 aided indigenous schools Gurmukhi is taught.

No industrial education is for the present given in the District, and there are no schools for aboriginal or depressed classes.

The most notable schools.

The Middle School at Campbellpur is situated in a building hired on a monthly rent of Rs. 25. Attached to it is a boarding school, also a hired building, the rent being Rs. 7 per mensem. The boarding school has accommodation for 15 boys. The boarders at present number 20. The school building is well situated at the north-west corner of the Civil Bazaar. The number of scholars on the roll at the end of June 1907 was 256, and the number of teachers including the Head Master was 11. The approximate fees collections amount to Rs. 128 per mensem, and the monthly expenditure is about Rs. 320 exclusive of contingencies. The equipment grant originally made amounted to Rs. 4,380. The teaching is of the usual kind. It is under consideration to raise the school to the status of a High School.

The school at Tallagang was started as a village Primary School in 1856. It was raised to the status of a Vernacular Middle School in 1881, and became Anglo-Vernacular in 1894.

Aid.

Aid to indigenous schools in 1905-06 amounted to Rs. 1,420. During the present year the grant is Rs. 211 per mensem. The Khalsa Middle School at Pindigheb was made an aided school in 1906. The aided Primary school in the same town gets its grant from the District Board and not from the Municipality.

The formation of the District has given a great impetus to education. Regular female education was started in 1905. In 1906, 39 new schools were opened, 29 for boys and 10 for girls. The present number of scholars is 5,385.

A list of schools maintained by the District Board follows:—

No.	Name of school.	Kind of school.	Whether maintained in District Board building or in hired house.	Remarks.
1	Tallagang	A. V. Middle ...	D. B. Building.	
2	Fatteh Jang	V. Middle ...	Ditto	
3	Adhwal	Do. ...	Ditto	
4	Rangu	V. Primary (boys).	Ditto	
5	Ghorgashti	Ditto ...	Ditto	
6	Gondal	Ditto ..	Ditto	
7	Attock	Ditto ...	Ditto	
8	Mirza	Ditto ...	Ditto	
9	Akhori	Ditto ..	Free	No rent.
10	Burhan	Ditto ...	Do.	Do.
11	Hasan Abdal	Ditto ...	D. B. Building.	
12	Kot Sundki	Ditto ..	Ditto	

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Education and Literacy.

No.	Name of school.	Kind of school.	Whether maintained in District Board building or in hired house.	Remarks.
13	Paur Miana	V. Primary (boys).	Rented Building	
14	Sultanpur	Ditto ...	Ditto	
15	Bahadur Khan... ...	Ditto ...	Free	No rent.
16	Dher	Ditto ...	Do.	Do.
17	Bolianwal	Ditto ...	Do	Do.
18	Bahtar ...	Ditto ...	D. B. Building	
19	Jhang	Ditto ...	Ditto	
20	Kuthal	Ditto ...	Ditto	
21	Jangal	Ditto ...	Free	No rent.
22	Murat	Ditto ..	Rented house	
23	Malal	Ditto	Ditto	
24	Rajor	Ditto ...	D. B. Building	
25	Chauntra	Ditto ..	Ditto	
26	Chakri	Ditto ...	Ditto	
27	Chak Beli	Ditto ...	Ditto	
28	Jabhi	Ditto ...	Free	No rent.
29	Dhurnal	Ditto ...	Do.	Do.
30	Basal	Ditto ...	Rented house	
31	Thatta	Ditto ...	D. B. Building	
32	Domial	Ditto ...	Ditto	
33	Saghri	Ditto ...	Rented house	
34	Kasran	Ditto ...	D. B. Building	
35	Kamlial	Ditto ...	Rented house	
36	Ziarat	Ditto ...	Ditto	
37	Mianwala	Ditto ..	Free	No rent.
38	Chhah	Ditto ...	Do.	Do.
39	Lawa	Ditto ...	D. B. Building	
40	Chinji	Ditto ...	Ditto	
41	Pira Fatial	Ditto ...	Ditto	
42	Pachnand	Ditto ...	Ditto	
43	Kot Sarang	Ditto ...	Ditto	
44	Trap	Ditto .	Free	No rent.
45	Dhurnal	Ditto ...	Do.	Do.
46	Taman	Ditto ...	Do.	Do.
47	Multan	Ditto ...	Do.	Do.
48	Thoa Mahram	Ditto ...	Rented house	
49	Kot Fatteh Khan ...	V. Zamindari ...	Free	No rent.
50	Khunda	Ditto ...	D. B. Building	
51	Nara	Ditto ...	Ditto	
52	Jand	Ditto ...	Ditto	
53	Jabhi	Ditto ...	Ditto	
54	Hazro	V. Primary (girls)	Free	No rent.
55	Kulu Kalan	Ditto ...	Rented house	
56	Hasan Abdál	Ditto ...	Ditto	
57	Bahtar (Urdu)... ...	Ditto ...	Ditto	
58	Fatteh Jang	Ditto ...	Ditto	
59	Adhwal	Ditto ...	Ditto	
60	Bahtar (Gurmukhi) ...	Ditto ...	Free	No rent.
61	Thatta	Ditto ...	Do.	Do.
62	Basal	Ditto ...	Rented house	
63	Jand	Ditto ...	Ditto	
64	Pindigheb	Ditto ...	Ditto	
65	Tallagang	Ditto ...	Ditto	
66	Do. B. K. ...	Ditto ...	Ditto	
67	Jabhi	Ditto ...	Ditto	

Native Press.

No newspaper is published in the District. There are two presses both at Campbellpur, one does English work, the other vernacular. No books are printed. Both presses are employed simply in printing occasional forms for the use of Government Offices.

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Section J.—Medical.

Medical.

District Staff dispensaries and hospital.

The Medical Department is under the general administration of the Civil Surgeon. The medical institutions are the Civil Hospital and six dispensaries. The dispensaries are at Hazro, Hasan Abdál, Fatteh Jang, Pindigheb, Tallagang and Lawa. Those at Hazro and Pindigheb are in charge of Assistant Surgeons. The others are administered by Hospital Assistants. The Lawa dispensary is housed in a hired building, and the rest in District Board buildings. Statement 53 in the Statistical Volume gives for each dispensary the daily average attendance. The Lawa dispensary treats only out-door patients. The other dispensaries have accommodation for in-door patients. The Civil Hospital at Campbellpur was opened in January 1907. The staff under the Civil Surgeon is an Assistant Surgeon, a Hospital Assistant, compounders and dressers. There is accommodation for 36 in-door patients. The chief operations are for cataract and stone. There is as yet no source of income. The District Board has sanctioned a grant of Rs. 10,000 for equipment.

Special Institutions.

There are no Lunatic or Leper Asylums and no necessity for them. The District is without any private or mission dispensary.

Vaccination. Sanitation.

The vaccination staff consists of a Superintendent of Vaccination and seven vaccinators who travel about the District. The cost is met by the District Board. Vaccination is nowhere in the District compulsory. The cost of the department was Rs. 1,926 in 1905-06, and Rs. 2,064 in 1906-07. In the former year 16,878 persons were vaccinated, in the latter 17,583. The percentage of the population protected in these years thus was 3·7 and 3·8 respectively. Revaccination is gaining ground. 27·34 per cent of the population has been successfully vaccinated. The five years' average of vaccinated persons is 11,835 or 2·3 per cent of the population. The expenditure on vaccination for the current year has been budgetted for at Rs. 5,460.

Native Methods.

Village sanitation, there is practically none. The only active sanitary measures are those taken in Municipal areas. Quinine is distributed free by the District Board.

Two *hakíms*, one in Tallagang and the other in Pindigheb, are employed by the District Board. Besides these there are a number of *hakíms* practising privately, and not a few quack dealers in charms and nostrums: of these the former have some importance as the intermediaries to whom quinine is supplied for sale to the villagers.

The following note written by Captain Corry, I.M.S., Civil Surgeon, Jhelum, is taken from the Jhelum Gazetteer. It applies with equal force to this District.

Jhelum is no exception to the general rule as regards native practitioners. They are almost all of them men without any

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Medical.
Types of Hakims.

diploma from a recognised school. There are five different types :—

(1) So-called *hakíms*, who belong to the family of *hakíms* and have learnt the art either from their fathers or from others of their class. They are taught medicine after a preliminary study of Urdu and Persian, and practise it first under the supervision of their teachers and only afterwards independently.

(2) Common druggists, or dealers in indigenous drugs. These persons first open a shop and deal only in drugs. Presently they begin to treat patients by using the prescriptions which are sent to them by the *hakíms*. They also read two well known books in Urdu and Punjabi named *Dár-ul-shafa* and *Khair-munukh*, which contain the symptoms and signs given in the form of poetry. Gradually they sign their name as *hakím* so-and-so, and paint the word *hakím* on their sign-board. Their knowledge is very superficial, and, apart from a certain empirical skill, they are totally unacquainted with scientific methods.

(3) *Vaids*: of these there are very few in the Disirict. They chiefly use herbs and metallic oxides called *kushtas*.

(4) *Sanyásís*: these are chiefly Hindu *faqírs*, who go from place to place treating venereal diseases, impotence, sterility and phthisis. They use very dangerous drugs such as arsenic and mercury, rarely gold chloride and occasionally herbs. Their chief places of resort are Tilla and Kitás where they assemble in large numbers from various parts of the country at the *Baisákhí* fair. Many people come to these places to find some good *Sanyásí* and either take him to their homes or get medicine from him. To the same class belong the alchemists who are believed to have the power to turn copper into gold and tin into silver, though the number of those who can really bring about a change is a fact which even those who believe in the possibility of this metallic transformation are in doubt.

(5) *Maulvís*, or preachers in mosques: these also practise medicine. In old days instruction in certain medical books used to be given to *Maulvís* as part of their Arabic course. The practice, though now less in vogue, is not yet extinct, and every now and then one does meet a *maulví* who has got a fair knowledge of the *unání* medicine. Some of them even know how to do venesection.

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These are the five chief groups of native practitioners in the art of healing. Those who practise surgery may also be briefly described. First among these is the common Barber. To a superficial observer he only appears as a trimmer of the cuticular appendages, but to one who knows him more fully he is also a surgeon. He can pull out a tooth with his crude *zambúr* (forceps), open an abscess, bleed for pneumonia, and perform scarification with his ever ready razor. Many a time he may be seen holding the forehead of a village boy on his knee and scarifying the nape of his neck, showing the black venous blood to the anxious mother as a proof that he has touched the diseased spot. Some of them treat ulcers, generally using copper sulphate and wax as the basis of their ointments.

Next to him comes the well known wrestler or *Pahlwán*, whose sole business is to set fractures or reduce dislocations. In the village this duty often falls to the common weaver who is believed to be an expert in his art. Bone-setting is effected by extension and counter-extension. To keep the broken ends in place a very dangerous procedure is adopted. A paste is made containing yolk of eggs, coriander powder, and some herbs called *maidásak* and *sajji*. This is painted over the broken part, pieces of bamboo stick are placed on it lengthwise and over this another coating of the same stuff. The rule, or rather I should say the misrule, is to bandage tightly. Very often such patients are brought to the hospital with limbs either gangrenous from obstructed circulation or verging on mortification, and it falls to the lot of not a few of us either to amputate or perform some less serious operation. Reduction of dislocations is always preceded by rubbing with sweet oil followed by manipulation. The patient is told to lie passive and the operation continues for several days.

Native Surgery.

The third specialist in surgery is the much reputed *Ráwal*. His chief, or rather sole, practice is Ophthalmic Surgery. Many of us must have seen the spoiled eyes of patients who come to hospital for cataract extraction. He does not take the lens out, but simply pushes it back into the vitreous and after getting his fee, bandaging the eye, and making the patient count fingers, quietly makes away giving directions that the eye is not to be opened for three days—time enough for him to be out of reach. Two places in this District are the head-quarters of *Ráwals*, whence they go forth to distant countries, including even Africa and Central Asia. These are Mohra Kor Chashm and Sháhán-ki-Dheri, both in the Chakwál Tahsil. But his services are less and less in demand as, like the use of quinine, cataract extraction has now taken a well deserved hold on the popular mind.

Next comes the common sweeper, who hawks in the streets for leech application: and mention must also be made of the women who come to cup patients with the hollow horns of certain

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animals. These latter place the horn on the part affected, suck air out of it by placing their mouth on the thin end and then keep it applied till the proper effect is produced. Under this head mention must also be made of the specialists in circumcision. They are commonly barbers, but only those of experience attempt the operation. The principle is the same as our own, only no sutures are used. The mucous membrane covering the glans is forcibly pushed back. Bleeding is controlled by fine cow-dung which is dusted on the part, and an ointment is smeared over the wound. Water dressing is applied, if swelling appears.

Another class of practitioners are known as *Jaráhs.* They go about from place to place with a small round box containing their instruments and dressings. They can remove necrosed bones by forceps and can dress various kinds of wounds and ulcers.

Methods of treatment by Hakíms.

These different groups having been described, a few examples may be cited to show how the *hakíms* treat the more common complaints.

(1) **Fever**: this they say is the result of a certain poison in the blood. They give it several names, but the treatment is much the same in each case. In acute fevers, even when the temperature is very high, they will never put anything cold on the head, saying that this treatment causes brain fever. Milk they do not prescribe, alleging that it contains fat and that fat is injurious during fever. The principle is to deplete the system and give vegetables and pulses. For chronic fevers they now allow milk and soup, perhaps from seeing us prescribe this diet without hesitation. For thirst they advise *sharbats* of tamarind and prune and *arq gaozabán.* As regards the use of purgatives, they sometimes refuse them at the start, but generally permit them after some days. (2) **Pneumonia**: venesection is the rule with old *hakíms.* Food is the same as in ordinary fever, but opium is seldom permitted. (3) **Plague**: tonics for the heart and caustics for the *bubo* are generally prescribed. (4) **Dysentery**: purgatives and mucilaginous and demulcent drinks made from such drugs as *isafgul* (*Plantaga ovata*) are prescribed, when it is thought to be due to *seybulæ*; otherwise strincgents like ginger, bael fruit or mango-seed. (5) **Cholera** is believed to be the result of bad air. The treatment for this disease is eliminative in nature at the beginning, and the drugs prescribed are nutmeg and cloves during the cold stage, tonics for the heart, opium, red pepper and *asafœtida* for controlling diarrhœa when excessive, ginger and sweet oil for rubbing on the body, with *khichri* (*dál* and rice) for food. Gram water is also given, and rice water to allay thirst. (6) **Small-pox** is thought popularly to be the manifestation of a goddess "Mata Devi." It is believed to be due to the menstrual blood, which is sucked in by the child *in utero.* In cold climates this material is destroyed. Very white people and albinos escape. The treatment adopted is intended to cleanse the blood; *ludhrák* is given after rubbing it up in rosewater,

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and pearls applied externally in the form of powder. Milk is given along with *munakká* to bring the pocks out. When the disease matures roasted gram is given to cause desiccation. (7) **Tonsilitis**: the treatment is as follows:—gargles of the pulp of *cassia fistula* boiled in milk, leeches externally, and *sharbat* of mulberry internally. The abscess is generally opened by the barber. (8) **Gravel**: the treatment prescribed is directed to promote fulmination, hot fomentation of poppy-heads or *khash-khásh*, hot affusion on the kindneys, baths, *sang-i-yahúd* and *jau khár* to dissolve the stone. Meat is avoided. (9) **Gout**: the cause is thought to be phlegm and wind in the system. Purgatives are first prescribed, afterwards ginger or *tárámírá* or *harmal* taken internally; locally oils of the same drugs are employed. Milk is avoided, meat and *dál* recommended. Rice is not prohibited. (10) **Syphilis**: mercury and arsenic are the chief drugs employed, with *sarsaparilla, chiretta papra* and *unáb* internally as blood purifiers. For local use *cachu múrdásang*, and burnt *kaurí* shell are recommended. Salivation is thought to be highly beneficial, as it is believed that after this process the poison is not transmitted to offspring, and sweating is similarly regarded. (11) **Dropsy**: three kinds are commonly distinguished—(*a*) Windy (*tabbi*) or *tympanitis*, (*b*) *lehmi* or general *anasarca*, (*c*) *zakkí* or *ascites*. The disease is attributed to liver and stomach troubles. The principles of treatment may be summarised as follows:—purgatives like camel's milk, milk of euphorbiaceous plants, rhubarb solution, *arq* of *kainch mainch* (*mako*). Diaphoresis is effected by placing the patient in a hot oven. Hot baths and diuretics such as anise and *kásni arqs* are also enjoined. Cures can be effected in the inital stages of the disease, but not later on. (12) **Phthisis**: a distinction is made between consumption, called *tap diq*, in which there is no hæmoptysis, and *sil* in which there is hæmoptysis. Four stages are observed. First the fever stage, secondly disorders of the internal organs, thirdly the cough stage, and fourthly that of diarrhœa. The first two stages are curable, the third only rarely and fourth never. Cold and *tar* things like camphor, *arq* of milk, pearls and other tonics, barley-water, gram soup, dried turnips, and soups made from birds are generally prescribed. Opium is not usually permitted.

Popular methods of treatment.

Before closing this note a few points about the popular ideas of treatment would not be devoid of interest.

Cauterisation is the common treatment for enlarged spleen, sciatica and deep-seated pains.

For ague cases another peculiar treatment is at times resorted to. A man, who is believed to be expert in that special method, places the cutting edge of a sword on the enlarged organ and presses on it with all his force, reading something while keeping up the pressure. This is done several times and it is said that the organ gets reduced and blood clots are passed *per rectum*.

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For malarial fevers, to check the paroxysms a sort of charm is written on a leaf, commonly of *banyán*, and the patient is told to look at it till the attack is past.

For neuralgia also a charm is written on a piece of paper which is doubled, and then hung over the eyebrow or other place affected. It is supposed that this expedient will effect a cure.

For meningitis hot bread is bandaged on the head.

Ram's fat from the tail end is plastered on the head in cases of tetanus.

In cases of general weakness nutmeg and almonds are prescribed as stimulants.

Demons are thought to be the cause of many obscure complaints, especially those attended by hysteria in any form. To wash the face of sick persons and especially to clean the eyes of children, when they are suffering from any sort of eye complaint, is strictly forbidden. Cow-dung poultices are always the first step towards hastening maturity in an abscess. Milk and *ghí* are often taken by persons who suffer from stone in the bladder for their supposed anodyne and diuretic. Villagers frequently visit the tombs of saints before undergoing any serious operations. This is especially the case with chronic rheumatism and sufferers from neuralgia. Ventilation is not at all favoured as a means to health. Putting bed covering over the patient's face, surrounding him with numbers of friends, burning charcoal in the same room, all these are expedients, the efficiency of which it requires tact and persuasion to prove futile. Every food stuff is believed to possess qualities either of heat, cold, dryness, or moisture, or a combination of these four properties: and, when a medicine is prescribed, the mother will invariably ask whether it be hot or cold, etc.

English medicines are generally believed to be hot and dry in their effects.

CHAPTER IV.—PLACES OF INTEREST.

Most of the places of interest in the District have already been referred to, and detailed notes on each are not now necessary. Only a short account of the more interesting places will be given.

ATTOCK.

The importance of Attock is or was due to the commanding position of the fort, built on a road overlooking the bridge-of-boats over the Indus, and therefore forming one of the chief defences of our line of communication with the Frontier. The *bázár*, formerly located within the fort, is now situated on the rocks below. Above Attock, the Indus is upwards of a mile in breadth, and from the rocks on which the station is built the eye wanders over a vast expanse of sand and water resembling an inland sea. A short distance above the fort it is joined by the Kábul river from the west, and their combined waters then force their way flowing with great speed, and broken at one point into a tremendous whirlpool by the rocks of Jalália and Kamália, through the narrow rocky channel. Three miles below the fort is the magnificent iron bridge which conveys the North-Western Railway and, by a sub-way, the Grand Trunk Road over the river, and has thereby practically taken away the strategical value of the fort. The bridge is separately described below.

At Attock the Indus was passed by Alexander by a bridge-of-boats built by Hephæstion and Taxiles, his ally. The fort was built by Akbar in 1581 A.D. on his return from an expedition against his brother Mirza Hakím, Governor of Kábul, who had invaded the Punjab. He gave it the name of Attak Banáras in contradistinction to that of Katak Banáras, the chief fort at the other extremity of his empire. General Cunningham believes the name to be of greater antiquity, and identifies its root with that of Taxila, and both with the name of the Taka tribe, who in ancient time seem to have held the country between the Márgalla Pass and the Indus. At the same time Akbar established the ferry, and imported a colony of boatmen from Hindustán, the descendants of whom still live at Malláhitolá, and enjoy the revenue of a village in Chhachh, which was granted by Akbar for their support. In 1812 Ranjít Singh surreptitiously seized the fort from the Wazír of Kábul, and it remained in possession of the Sikhs until the close of the first Sikh War. In 1848 it was gallantly defended by Lieutenant Herbert, but ulimately captured by the Sikh rebels. Since the close of that rebellion it has been occupied by the British troops. The present garrison consists of detachments from a battery at Campbellpur. The bridge was opened for traffic in June 1883, and is guarded by a detachment from one of the Native Infantry Regiments at Ráwalpindi. Till the railway bridge was completed, a bridge-of-boats

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in the cold season and rains and a ferry in the summer used to be maintained over the Indus at Attock. The crossing is dangerous on account of a whirlpool formed by the junction of the Kábul river with the Indus, which takes place just above, or almost opposite, Attock. Below the junction are two rocks, known by the names of Kamália and Jalália, which, jutting into the river, render the passage still more dangerous. Boats are not unfrequently dashed against them. The names are derived from Kamál-ud-din and Jalál-ud-din, sons of the founder of the Roshnái sect, who were flung from these rocks for adherence to their father's heresy during the reign of Akbar.

The principal merchants in the town are the Paráchás, an enterprising Musalmán race who penetrate into Central Asia, and there exchange Indian goods for those brought by the Russians and others from China, Thibet and Tartary. The principal antiquities are the fort, and a handsome tomb known as the *Kanjirí's.* The public buildings are the Church, the old Court of the Assistant Commissioner in charge of the sub-division, Police station, staging bungalow, two *saráis* and a school-house.

The Municipality gave way in 1901 to a notified area. The place is steadily decaying. The population as ascertained at the census enumerations of 1868, 1881, 1891 and 1901 is given in the margin.

Year of census	Persons.	Males.	Females.
1868	3,842	2,366	1,476
1881	4,210	2,753	1,457
1891	3,073	1,814	1,259
1901	2,822	1,760	1,062

The Attock bridge consists of five spans of steel girders (Wipple Murphy type); two of these spans over the main channel of the river are 308½ feet span, and the remaining three, through which water only passes during the flood season, are 257½ feet span. The girders are 25 feet in depth, and the bottom of the lower beam is 111 feet above low water level; thus the top of the girders is 136 feet above water level. The rails are laid on the top of the girders; below is a sub-way, metalled with asphalt, adapted for ordinary road traffic; it is 16 feet wide and 18½ feet high, and will pass every description of vehicle or beast. The girders are supported on wrought iron trestle piers consisting of four standards and four radiating struts grouped together, and meeting at the top in a wrought iron entablature; the standards and struts are braced together horizontally at every 25 feet in height, and there is also a diagonal vertical bracing between each of the horizontal bracings. The standards and struts are founded on the solid compact rock forming the bed of the river which has been cut away to depths varying from 6 to 12 feet for their reception. No. 3 pier in mid-stream is founded upon a subaquan rock submerged with 5 or 6 feet of water even in the cold

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season. In the cases of the other piers the rock was dry when the foundations were constructed. As a protection against wreckage logs, and floating timber during floods, piers Nos. 2, 3 and 4 are guarded with masonry cut-waters on their up-stream falls; these cut-waters are 100 feet in height, and would protect the piers against accident from any flood that has yet been recorded. The abutments are of solid limestone block in coarse masonry, very massively constructed; local blue limestone has been used, but Taráki sandstone has been freely introduced in the arches, coigns, and cornices. Preparations for the construction of the bridge were commenced in 1880; and actual commencement was made in December 1881; by September 1882 the piers were completed; meantime, in July 1882, the erection of the first two spans (257½ feet) of girders was commenced and they were completed in August 1882; the fifth span of girders (also 257½ feet) was commenced in November 1882 and completed in January 1883; the erection of the timber staging for the two large spans (3rd and 4th) was commenced in October 1882 and completed in March 1883; on the latter date the erection of the large girders commenced; they were self-supporting by the end of March 1883, but not entirely completed before the end of April. The bridge was tested and reported ready for traffic on 12th and 13th May, and formally opened on the birthday of Her Majesty the Queen-Empress.

CAMPBELLPUR.

Campbellpur is important as the District Head-quarters and as a cantonment. The adjacent village (Kámilpur) is a small place, inhabited by Sayyads, and of little interest. The Civil Station lies between the cantonment and the railway. The Civil Bazaar is built on a plot of land acquired by Government under the Land Acquisition Act and sold by auction for building sites. It is still growing very rapidly. The only buildings of importance are those recently erected in connection with the new District, the District Courts, the District Jail, the Civil Hospital, etc. The population as ascertained at the census enumerations of 1868, 1881, 1891 and 1901 is shown in the margin.

Year of census.	Persons.	Males.	Females.
1868	1,833	1,260	573
1881	1,467	983	484
1891	2,556	1,753	803
1901	3,036	1,986	1,050

The cantonment used to contain an Elephant Battery (formerly stationed at Attock) and a Field Battery. The garrison now is one battery of Field Artillery, one company Garrison Artillery, one Ammunition Column and one Camel Corps.

The Haro which flows close by the cantonment on the south affords fair fishing. Some shooting is to be had in the Kala Chitta Range, which is not far off.

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HAZRO.

Hazro is a pretty little town of 9,799 inhabitants, situated in the middle of the fertile Chhachh valley lying between the Indus and the dry ravines and desolate sand-hills of the Campbellpur plain. Its white mosques and spires, relieved by occasional palm trees rising from the midst of waving fields, are visible from a great distance. The scene of the great battle in which, in A.D. 1008, Sultán Mahmúd Ghaznavi defeated the united forces of the Rájás of Hindustán and the infidels of the Punjab with a slaughter of 20,000 men, it was afterwards fixed upon by some of the Pathán followers of that chieftain to be the site of their colony. Frequently looted in the unsettled times prior to British rule by Pathán marauders from the neighbouring hills and from beyond the Indus, it never attained any position beyond that of a large village, but has now greatly increased in size and prosperity. Grains of all kinds are collected from the rich country round about, and traders bring their wares from Yusafzai and the neighbouring independent territory. An excellent quality of snuff is manufactured in large quantities. All these goods are exported in exchange for European piece-goods, indigo, etc. The town is nearly surrounded by a wall, and the *bázárs* are neat and clean. Of public buildings, there are a police station, good school-house, dispensary, and a Municipal Committee house, which is occasionally used as a court. It is to be regretted that the North-Western State Railway does not pass close to the town, for though only a few miles distant, the road to the nearest station is an expensive one to maintain, owing to the swampy nature of the country which it has to traverse. The population is half Pathán, half Hindu. The results of the census enumerations of 1868, 1875, 1881, 1891 and 1901 are given in the margin. It is difficult to ascertain the precise limits within which the enumerations of 1868 and 1875 were taken, and the accuracy of the figures for these years is doubtful.

Year of census.	Persons	Males.	Females.
1868	6,421	3,483	3,008
1875	7,950	...	...
1881	6,533	3,430	3,103
1891	7,580	3,991	3,589
1901	9,799	5,190	4,609

HASAN ABDAL.

The archæological remains of Hasan Abdál and the successive legends of Buddhist, Brahman, Muhammadan and Sikh origin which cluster round the sacred fountain have been described in the Historical Section, pp. 26-31.

The shrine of Panja Sahib crowns a precipitous hill about one mile east of the town, and at its foot stands the holy tank, a small square reservoir of pure water, generally full of fish. Dilapidated brick temples surround the edge, while, on the west side, the water gushes out from beneath a rock marked with a rude

representation of a hand, ascribed by the Sikhs to their founder, Bába Nának. The hill of Hasan Abdál has been celebrated for its beauty since the Moghal times. To the south of the shrine, on the opposite bank of the Haro, lies the garden of Wah, formerly a resting place of the emperors on their way to the valley of Kashmír but now a mass of jungle-clad ruins. Facing the garden, on the Hasan Abdál side of the river, a tomb shaded by two ancient cypress trees covers the remains of one of Akbar's wives.

FATTEH JANG.

Fatteh Jang is a large village of 4,921 inhabitants. It was first made the head-quarters of a tahsil in 1859 at the first Regular Settlement. It lies on the highroads from Rawalpindi to Khushalgarh and Kohat and from Rawalpindi to Kalabagh.

Petroleum is found at Sadkál, three miles away. There is a little trade in grain and vegetable, oils and some manufacture of leather, soap and *lungis*. The tahsil, thana, dispensary and a district bungalow are the only public buildings. The most conspicuous building is the house of Misr Ramjimal, which is a very conspicuous landmark from the surrounding country.

Year of census.	Persons.	Males	Females.
1868	4,662	2,483	2,179
1881	4,875	2,736	2,139
1891	5,039	2,726	2,313
1901	4,825	2,531	2,294

The marginal table shows the variations in population at the various census enumerations.

KOT.

Kot is the seat of the chief Gheba family. It lies on the Fatteh Jang-Kalabagh road and has a good district bungalow. The village itself is of no importance apart from the residence of the Gheba Sardar and the shrine of Bhai Than Singh, a saint of great reputation. A mile away are the ruins of the fort of Pehág where Rae Mohamed Khan was murdered by the Malláls.

PINDIGHEB.

Pindigheb, the head-quarters of the tahsil of that name, is situated on the south bank of the Síl. It is the ancestral seat of the Jodhra Maliks of Pindigheb, by whom it was founded. It is the only place of any size in the tahsil, and situated as it is in a very wild tract, it presents a pleasing appearance to the eye by contrast with its surroundings. There are a good many trees studded about, and, as water is near the surface, there are many vegetable gardens and plantain trees, which make it look like an oasis in the white sand of the stream which lies on one side of it. The houses are however poor and small, and there are no buildings of any importance. Recently a house for the Assistant Commissioner and a court house have been built, and the construction of

PUNJAB

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PART A.

WITH MAP

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